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TOWN OF CORTE MADERA GENERAL PLAN

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TOWN OF CORTE MADERA GENERAL PLAN

Prepared for the
TOWN COUNCIL., TOWN OF CORTE MADERA, CALIFORNIA

By

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ADOPTED JULY 21, 1975

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PREFACE

Two major chapters and a technical appendix comprise the Corte Madera General Plan.

The introductory chapter provides background to the Plan's formulation, summarizes relevant planning studies, and describes and assesses local conditions to be addressed by the Plan.

The second chapter, General Plan Elements contains seven separate sections, each describing one or more of the state-mandated general plan elements. Two additional mandatory elements, noise and safety will be added as soon as time permits. The first of these sections, Land Use Element, Policy Framework and Plan Summary, is of special importance because it presents the Town's basic aims which set the framework for the Plan's specific policy recommendations. It then summarizes these major policies as well as the implementation recommendations. In addition, this action was formulated so that it could also be used as a separate document for broad public dissemination.

The Technical Appendix contains much of the major statistical data and background information used in the preparation and formulation of the General Plan.

The loose-leaf format used for the Corte Madera General Plan is designed to facilitate updating of the Plan without the need to reproduce portions not amended. In this way, the General Plan becomes a flexible document, one that can reflect changes in conditions and values as they occur. Since this General Plan will undergo periodic reviews, all users should consult with the Town prior to using this document for official or legal purposes in order to ascertain all approved changes. Individuals on the Town's official mailing list will receive amendments as they are made available.

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BACKGROUND TO THE PROGRAM

In 1963, the Town of Corte Madera General Plan was thoroughly revised. Since then, however, major changes have taken place in public attitudes and legal requirements. The concern for the natural environment, for example, is more pronounced now, as is the desire to de-emphasize the use of the private automobile. In addition, the State Legislature has mandated that nine specific elements must be included in all general plans. Overall, then, some of the most basic assumptions of the 1963 plan have been altered and the form of the earlier plan has been rendered obsolete.

In the fall of 1972, as a response to the need for a new plan, the Town's Mayor appointed 42 residents to assist in the preparation of a new Corte Madera General Plan. Those residents, including members of the Town Council and the Planning Commission, worked with the consultant for a year to assess local problems and values, to establish community goals, and to formulate policies and programs to achieve the goals they had established. Organizationally, five citizen committees were formed to deal in depth with housing, community services, open space, transportation, and community appearance. In large measure then, this document is the result of the work of those citizens.

A decision that was required early in the study concerned the actual area of study. Due to the importance of the Tiburon Peninsula Ridge and on increasing pressure for development adjacent to Corte Madera, the planning area used in the General Plan, shown in Figure 1-1 extends beyond the corporate limits of the Town. The major portion of this unincorporated land is composed of the Tiburon Peninsula Ridge which acts as an open space "separator" between Corte Madera and Tiburon. Currently under the county's jurisdiction, the ridge is crucial to the Town because of its significant visual importance and potential impact on public service facilities and, to a lesser but important extent, because of its considerable recreational potential. Unincorporated areas west of U.S. 101 have been included in the planning areas because of recent development proposals or development activity. Three specific sites included are: a housing development south of the railroad right-of-way and west of Tamal Vista Boulevard; a partially developed area west of Meadowsweet Drive and east of the Quarry site; and a partially developed area southwest of Casa Buena Drive, between the Corte Madera and Mill Valley corporate limits.

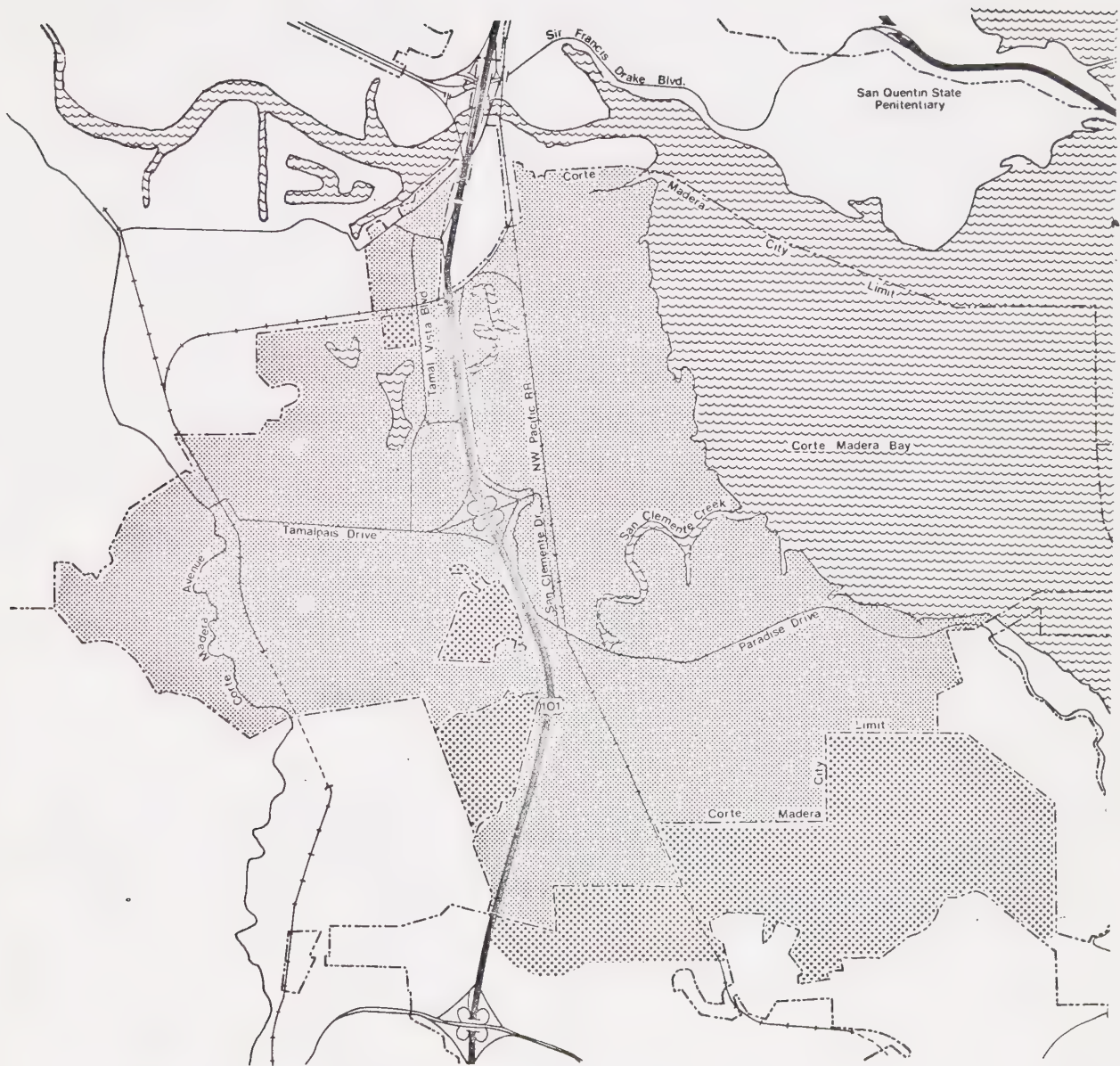


FIGURE I-1
CORTE MADERA PLANNING AREA

-  Incorporated Lands
-  Unincorporated Lands

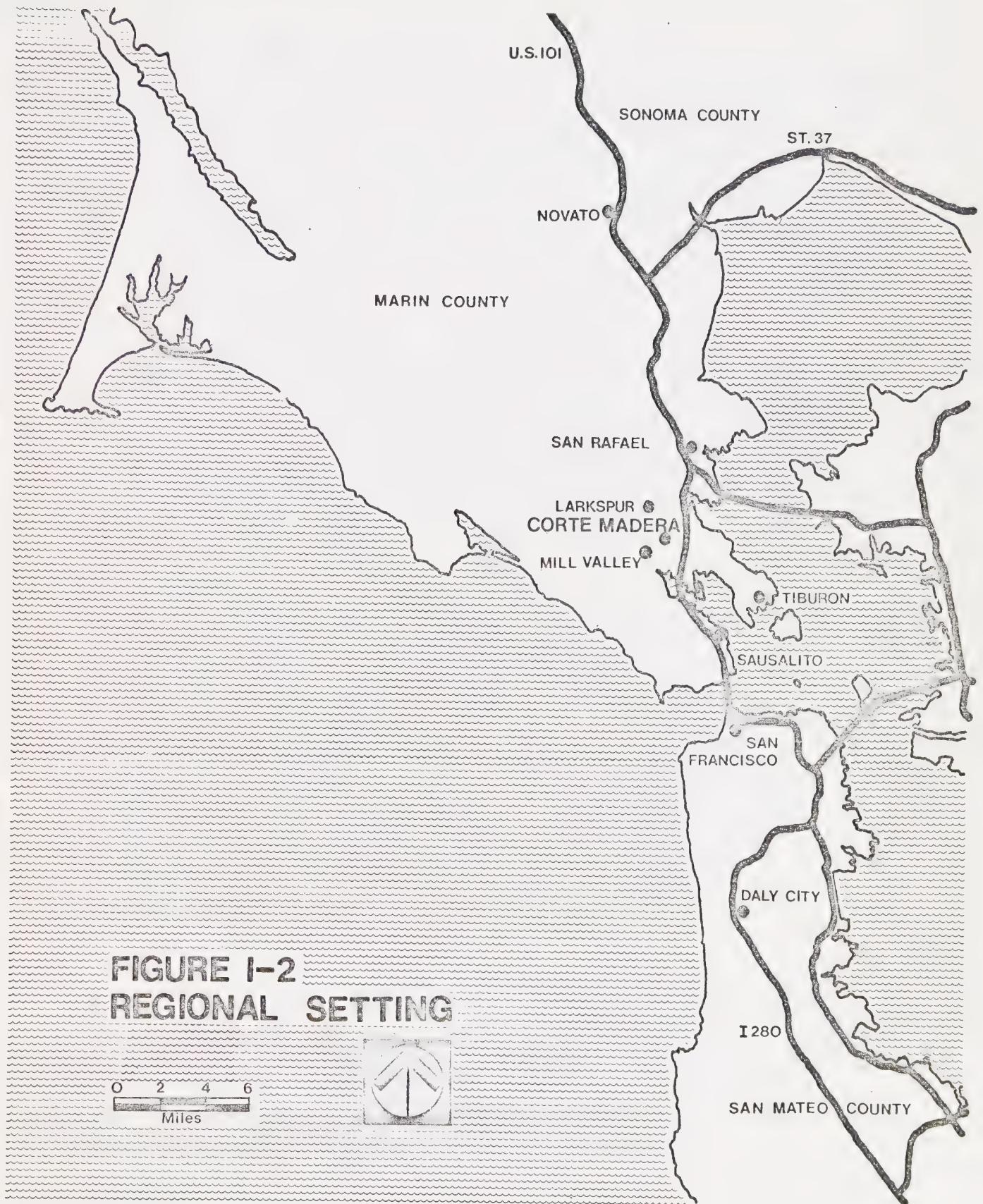


A great many plans and planning programs are being developed in the area surrounding Corte Madera. Because these programs are undertaken in incorporated areas, it is not appropriate to include them within the Town's planning area. For example, plans for the Northridge outside of Corte Madera, for portions of the railroad right-of-way in Larkspur and Mill Valley, and for the ferry terminal site and remainder of the San Quentin Peninsula will all have an effect on the quality of life in Corte Madera. It is essential, therefore, that all these communities work jointly and adopt policies which will be mutually beneficial.

EXISTING CONDITIONS

The Town of Corte Madera lies in the southeast portion of Marin County, about eight miles north of the Golden Gate Bridge. It is the approximate center of the more heavily populated southern portion of the county, with Mill Valley, Sausalito and Tiburon to the south and Larkspur, Greenbrae, San Anselmo and San Rafael to the north. Regionally, the Town is served by U.S. 101 which bisects Corte Madera and creates an "east and "west" side. Figure 1-2 shows the location of the Town in the San Francisco Bay Area.

In some ways the Town itself can be characterized by a review of existing socio-economic, land use and circulation conditions. These factors are important in developing a framework for the Corte Madera General Plan in that they provide a basis for policy decisions; that is, the review of this data provides an opportunity to view the current situation and thereby determine what kinds of changes are necessary and desired. In addition to this data, a review of public plans and programs in adjacent communities is also important since these programs could have a significant effect on planning decisions within Corte Madera.



**FIGURE I-2
REGIONAL SETTING**

SOCIO-ECONOMIC CHARACTERISTICS. Important socio-economic characteristics considered within the study include local population composition, income, employment and mobility. Information on these factors was derived from the 1970 U.S. Consus and can be found in the Technical Appendix. Since the population increase in Corte Madera over the past five years has been small, most of the 1970 figures are probably fairly accurate. However, improvements in the Golden Gate Bridge Highway and Transportation District's ferry and bus system may have resulted in some modification in the travel behavior of residents, particularly in the commute to downtown San Francisco.

POPULATION. In April of 1970, Corte Madera had a population of 9,421, equivalent to just under 4.5 percent of Marin County's population of 206,038. Age structure in Corte Madera generally parallels that of the County as a whole, and the Town's average family size is 3.29 compared to the County's 3.38. About 73 percent of the Town's residents live in areas west of U.S. 101, with the remainder living in the newer areas to the east. The 1970 census data indicates that racially, the Town is 97 percent white, compared to 95 percent for the county.

INCOME. About 90 percent of all Corte Madera residents are reported living in what the consus terms "family households". A review of 1970 income characteristics of these family households indicates a median income of \$14,100. However, this figure generally termed "moderate", has increased over the past three years due to inflation and has severely limited availability of adequate family housing in most of Marin for new residents earning less than \$15,000. It is significant to note that the median income differed considerably east and west of the freeway: in the east, median income was \$15,797, \$1,766 higher than that for the families living in the west of U.S. 101. By comparison, the entire county had a 1970 median income of \$13,935. Appendix Table 1-2 indicates the 1970 income distribution for the approximately 2,500 family households in Corte Madera.

EMPLOYMENT. In April of 1970, Corte Madera had a civilian labor force of 4,031 persons, of which slightly less than six percent (232 persons) were unemployed. Of the employed residents, 36 percent were women. As shown in Appendix Table 1-4 which indicates the number of people employed in various industrial categories, the wholesale and retail trades employed most of the Town's labor force, equal to 22 percent. Overall, 72 percent of employed residents worked for private individuals or enterprises as salary or wage workers, 10 percent were self-employed, and 18 percent worked in government occupations, including the school districts. Appendix Table C1 shows that less than 36 percent of workers were employed in Marin County and that the overwhelming majority - nearly 50 percent - commuted to San Francisco.

LAND USE. Corte Madera is a town in which the predominant land use is single-family detached homes in well-defined, landscaped neighborhoods. The older portions of the Town west of the freeway are built largely on sloping hillsides that reach elevations of 1,000 feet. This area is wooded with oak, eucalyptus and redwood and includes a dense understory growth. Over time, some of the natural underbrush has been replaced with a wide variety of native and exotic vegetation. In the area east of the freeway, 87 percent of the housing was built since 1950, and 40 percent of this number was constructed since 1965. These newer areas have been built primarily on lowlands and tidelands over filled ground, although some development has begun on slopes which form part of the Tiburon Peninsula Ridge. These slopes are now open and grassy, with some brush and scattered trees, while the remainder of the vegetation in the wetland areas is limited primarily to aquatic grasses.

In addition to single-family homes, about 25 percent of the total housing supply is comprised of multi-family residential units. In addition, there are areas of commercial and industrial development near the freeway as well as schools, parks and open space areas. Figure 1-3 shows the existing general land use pattern in the Corte Madera planning area.

NATURAL FACTOR. Much of the vacant land shown on Figure 1-3 "Land Use, 1973", may initially appear to have a high potential for development. However, many of these areas also exhibit development constraints and/or significant scenic, recreation or natural habitat values. The presence of either or both of these factors eliminates or substantially reduces the ability of the land to withstand development because of the likelihood of incurring harm to life and property or altering high-value elements of the natural environment. There is a strong feeling among residents to maintain the scenic open and natural character of the Town by publicly acquiring and preserving as many of these open spaces as possible. Some of the lands, particularly the marshes and wetlands along the Bay shoreline, have high natural habitat value and, local citizens are joined by several conservation organizations and public regional agencies (BCDC, for example) in seeking their preservation.

CIRCULATION AND MOBILITY. Most Corte Madera residents rely on the private automobile for shopping and commuting purposes, although the area is served by local and express buses operated by the Golden Gate Bridge District. Nearly half of all commuters worked in San Francisco in April 1970, and of these, 789 persons (20.8 percent of all commuters), worked in the San Francisco central business district. Nearly half of all Corte Madera households reported that they had two or more cars available to them.

The main route through the Town is U.S. 101 which is also the principal freeway running north-south through Marin County from Sonoma County on the north to San Francisco on the South. The major freeway interchange serving the Town is located at Tamalpais Drive. However, the cloverleaf design and its proximity to the Madera Boulevard exit and entrance for southbound traffic have resulted in dangerous weaving conditions on the freeway. Pedestrian access from east to west across the freeway is essentially absent, although use of Tamalpais Drive is sometimes made even though it is extremely dangerous. Since many of the community services - including the library, Town Park, Town Hall and the Police and Fire Departments - are located west of the freeway, a significant number of residents living in the eastern portion of the Town feel there is an inadequate distribution of Town Services.

Several other major roads are in the area. Corte Madera Avenue runs north-south through the hills and connects Corte Madera with Larkspur and Sir Francis Drake Boulevard to the north and with Mill Valley to the south. Paradise Drive is the major arterial serving residents east of the freeway and goes east then south around the Tiburon Peninsula. All access roads to housing developments are reached from Paradise Drive.

Pedestrian and bicycle access throughout Town is for the most part inadequate, with few areas where bicyclists can ride safely away from vehicular traffic. Although the Northwestern Pacific Railroad right-of-way runs through the Town both east and west of the freeway, most of it has been abandoned and not put to any other use except for a small portion used to widen San Clemente Drive.

LAND USE, 1973

-  Retail Sales and Service
-  Tourist Accommodations
-  Office/Administrative
-  Light Industry/Warehousing
-  Institutional (Schools, Library, Town Services)
-  Residential (1-6 Dwelling Units per Net Acre)
-  Residential (7-17 Dwelling Units per Net Acre)
-  Parks and Recreation
-  Vacant Land

FIGURE I-3

THE TOWN OF CORTE MADERA, CALIFORNIA



SEDWAY/COOKE
URBAN AND ENVIRONMENTAL
PLANNERS AND DESIGNERS



REGIONAL PLANNING STUDIES

Since 1963, when the last Corte Madera General Plan was adopted, several major regional studies have been prepared. The major policies contained in these plans which could affect Corte Madera are described below.

MARIN COUNTY-WIDE PLAN. Corte Madera has been designated as a portion of the residentially developed corridor extending along the southeast portion of Marin County in both the Association of Bay Area Governments (ABAG) "Regional Plan 1970-1990" and in the new "Marin County-Wide Plan". Each of these plans also specifies the Corte Madera area as a community activity center for regional commercial facilities.

The "Marin County-Wide Plan" contains three major goals which will strongly influence the Corte Madera General Plan. They are:

1. Discourage rapid or disruptive population growth but encourage social and economic diversity across the county and within the neighborhoods.

The major aim of this goal is to limit growth to about 2,000 new dwelling units per year. This would result in a maximum county-wide population of 260,000 by 1980, an increase of more than 50,000 persons over 1970. The 1970 income mix for the county was 20 percent "low" (under \$8,000/year), 47 percent "middle" (\$8,000 to 15,000/year), and 33 percent "high" (\$15,000 + year). The Plan proposes that this mix remain constant by providing housing appropriate for these income ranges. Intricately involved in this aim is the need to institute property tax relief for some residents in order to curtail the exodus of low and middle income families from the county.

2. Achieve greater economic balance for Marin by increasing the number of jobs for residents and by adding to the supply of housing for some of the people who now commute into Marin to work but who would like to live here.

In 1970, approximately 47.5 percent of Marin's employed residents worked outside the county. In the southeast portion of the county where Corte Madera is located, the percentage was more than one and one half times as high. Because there is so little local employment at present, residences

account for 77 percent of the local property tax base. Therefore, the aim here is to encourage the creation of new jobs for all income ranges within the county-wide centers at Corte Madera, Larkspur, San Rafael, Northgate and Novato. A main assumption is that many present residents will find new employment closer to their homes and new residents will move to and work in Marin. The result will be a diversification of the local economy and a reduction in the amount of commuter miles driven. Interrelated with Goal 1, new housing will have to be developed for the increase in low and moderate income workers.

3. Keep the quality of the natural environment high, and achieve high quality in what is built, through a balanced system of transportation, open space and land use.

This goal encompasses several proposals including the upgrading of U.S. 101 to an eight-lane freeway from the Golden Gate Bridge to Route 37, reducing automobile traffic by developing a complete transit system with the main-line facilities integrated with the U.S. 101 right-of-way, establishing a county-wide bicycle path system serving all communities and recreation areas, creating a unified system of open spaces and parks with the acquisition of Bay shoreline and the ridges separating communities with the earliest and highest priority for action and finally, higher density housing (12-20 dwelling units/acre) built near the county-wide centers in combination with the proposed increase in commercial activities. The latter also proposes the encouragement of some family-size units in all new apartment developments.

SAN FRANCISCO BAY PLAN. The San Francisco Bay Conservation and Development Commission (BCDC) has jurisdiction 100-feet inland from the Bay and, therefore, within the Corte Madera Bayfront. "Bay" is defined to include marshlands, tidelands and submerged lands - that is, land lying between mean high tide and five feet above mean sea level, lying between mean high tide and mean low tide, and lying below mean low tide respectively. But "Bay" excludes those lands not subject to tidal action. The BCDC plan recognizes that there is high value water bird habitat in Corte Madera and therefore recommends: the development of a shoreline park within those lands presently diked but not developed; the maintenance of existing tidal marsh; the provision and protection of public access to shellfish areas offshore; and a proposed launching ramp for pleasure boats and a marina near the mouth of Corte Madera Creek.

MARIN COUNTY REGIONAL PARK AND OPEN SPACE DISTRICT. The primary purpose of this newly formed district will be to acquire open space throughout the county. Acquisition priorities will be based upon a series of criteria including the preservation of scarce natural habitats, the preservation of ridges which act as natural community separators, and the degree to which an open space is vulnerable to development. In order to guide the district in its acquisition program, it will be necessary for the Town of Corte Madera both to indicate which lands they feel should be

preserved for county-wide benefits and to establish the relative priority for acquisition. This is especially important since the district policy requires that land to be preserved must be identified in the Open Space Element of the "Marin County-wide Plan" or in other specific and general plans. The latter, therefore, would include the Corte Madera General Plan. It should be noted that the major portion of district funds will be used only for acquisition and related expenses; maintenance and operation of a county-wide facility will be the responsibility of the local jurisdiction.

GOLDEN GATE CORRIDOR TRANSPORTATION FACILITIES PLAN. This plan of the Golden Gate Bridge, Highway and Transportation District proposes rapid transit improvements for Marin County residents, with emphasis on maximizing commuter accessibility to downtown San Francisco. The plan contains five alternate route and system recommendations, all of which pass through Corte Madera. Current studies are concentrating on defining the exact alignment for the transit right-of-way as it travels through San Francisco, but subsequent studies will determine the final Marin County alignment as well. Therefore, it is important that the Town of Corte Madera makes firm recommendations for that portion of the transit route that passes through the Town.

ADJACENT COMMUNITY PLANNING STUDIES

The Cities of Tiburon, Mill Valley and Larkspur, as well as several nearby unincorporated areas have developed - or are now in the process of developing - plans which could have serious effects on Corte Madera. A brief discussion of each of these planning efforts is provided below.

TIBURON OPEN SPACE ELEMENT. This element, prepared for the City of Tiburon and released in October 1972, makes specific recommendations for open space preservation for Tiburon and its immediate surroundings. Included is an action proposal for the Tiburon Peninsula Ridge, portions of which are in the Corte Madera planning area. Specifically, the element recommends that all of the ridge area, from Tiburon to the Corte Madera Town limits, be preserved in permanent open space to protect the scenic amenities, vegetation, and habitat value of the ridge and to provide for recreational trail opportunities.

TIBURON TRAILS PLAN. The Phase 2 report of May 1970, makes recommendations for a continuous trail system through portions of the City of Tiburon, the unincorporated portions of the Tiburon Peninsula Ridge and into Corte Madera. The trail winds from Keil Cove in the southwest section of Tiburon, continues along the top of the ridge and eventually terminates in Corte Madera at U.S. 101. This proposed Tiburon Ridge trail is a crucial part of the overall county-wide trail system and an essential component of the plan to develop a continuous trail for hikers from the San Francisco Bay to the Pacific Ocean. The report also recommends that the Tiburon Ridge trail eventually be linked with new and existing trails west of the freeway by providing an overpass in Corte Madera. The "Tiburon Trails Plan" is important to Corte Madera since it makes recommendations for the use of lands within the local planning area as well as lands within the Town's corporate limits. Further, it sets a very specific aim for the future use of the ridgetop which implies a regional, rather than local, importance of these ridge lands for scenic preservation and recreational opportunities.

STRAWBERRY AREA PLAN. The Strawberry Area lies east of the freeway and south of Corte Madera. The northern open space lands, considered to be within the Strawberry planning area, are the same ridge areas also considered in the "Tiburon Open Space Element" and included in the Corte Madera planning area. The latest policy recommendations of the Strawberry Area Citizens Open Space Committee call for public acquisition with permanent open space of the ridge top areas with regulated development of the remainder of the lands. These would include provisions to permit development on lands that are free from significant geologic, topographic and seismic hazards, and which do not contain significant vegetation and wildlife habitat. All development, including roads, would be sited on the lower portions of the ridge in a manner which preserves a natural open space appearance. Stringent design controls would be exercised to insure that land forms and significant vegetation are not substantially altered and that the natural appearance of the overall area is retained.

NORTHRIDGE PLAN. This report, prepared in 1972 and paid for by the Marin Conservation League and the Marin County Parks and Recreation Department, is a preliminary open space plan that delineates 1,347 acres of ridgelands, hillsides and canyons to be preserved in the Northridge. The Northridge lies in Marin County (394 acres), Larkspur (363 acres), Mill Valley (494 acres) and Corte Madera (95 acres); most of the terrain has a slope of 30 percent or more. The prime purpose of the plan is to maintain the greenbelt, or divider, between cities as well as to maintain the important visual and natural appearance attributes of the site. Although the plan is not an official document, Marin County does have a policy to retain ridges in permanent open space, including the Northridge. There is still some question as to the exact boundaries of the Northridge and the method by which acquisition can be financed. Financing is of prime importance since the land is valued at more than \$3 million and is under four separate jurisdictions.

MILL VALLEY COMPREHENSIVE PLANNING PROGRAM. The City of Mill Valley has begun work on a comprehensive planning program which will result in a revised general plan to be completed in late 1975. A major part of the plan will address growth and conservation issues and, since Mill Valley and Corte Madera share common boundaries along the Northridge, it is important that the two cities develop compatible policies. A trail system between the cities which might utilize the abandoned railroad right-of-way for part of the network is also to be considered in the Mill Valley Plan.

LARKSPUR GENERAL PLAN REVISION. The City of Larkspur has revised their general plan and many of the recommendations will have a direct affect on Corte Madera, particularly in regard to use and development of the San Quentin Peninsula, the ferry terminal and the Northridge. In addition, the Larkspur plan recommendations for modifications in freeway design and the possibility of sharing municipal services and facilities with Corte Madera is of importance to the Town. While the future of the San Quentin State Penitentiary and the remainder of the peninsula is still indefinite, the Larkspur City Council adopted in late 1972, a general plan for the peninsula which calls for a combination of open space/recreation, large-scale apartment development, commercial facilities and motels. Whether this development will actually materialize as planned is uncertain, but any future expansion of facilities on the peninsula will, most likely, affect traffic circulation in Corte Madera, particularly along the freeway, and will have a significant visual impact on views of the area from many portions of the Town.

The Golden Gate Bridge, Highway and Transportation District has also selected a site on the southwestern portion of the peninsula as the location for the Larkspur ferry terminal. This terminal will serve boats to and from San Francisco and will expand the service now available from Tiburon and Sausalito.

RECENT CORTE MADERA PLANNING DECISION

During 1973 a major planning decision was made concerning the large undeveloped marshlands and upland areas east of U.S. 101 - the adoption of an interim amendment to the existing Corte Madera General Plan which is discussed below.

INTERIM GENERAL PLAN AMENDMENT. This amendment eliminated conflicts in policy between the General Plan and BCDC's "San Francisco Bay Plan", and insured that the General Plan more adequately reflected region-wide refinements in transportation policy as well as a new awareness of the value of natural habitats.

The interim amendment was approved by the Planning Commission in March 1973. The provisions designated areas for special use as well as enumerated specific high habitat value areas suitable to be permanently retained as natural habitat preserves. The amendment also included the protection or replacement of all areas having substantial wildlife habitat value on sites to be developed; provisions for pedestrian and bicycle access between lands east and west of U.S. 101 and along the Bayfront where such access would not adversely affect major wildlife habitat values; and design requirements for building siting and landscaping. The intent of the latter was to ensure the retention of the visual relationship to the Bay from major travel corridors and public areas within the project site, and to ensure an attractive appearance appropriate for this highly visible and significant area of Corte Madera.

CHAPTER 2
GENERAL PLAN
ELEMENTS

LAND USE ELEMENT: POLICY FRAMEWORK AND PLAN SUMMARY

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Land Use Map	on file in Community Services Dept.

LAND USE ELEMENT

POLICY FRAMEWORK AND PLAN SUMMARY

POLICY FRAMEWORK. The Corte Madera General Plan is designed to function best as a guide. It is a basis for decision-making that portrays the goals of the Town and indicates the steps necessary to achieve them. But a general plan is no stronger than the interest of a community. Use the Plan and it becomes a vital tool in helping shape and maintain the environment so precious to the Town. Ignore the Plan and it grows lifeless and valueless.

The Corte Madera General Plan identifies a series of aims basic to residents of the Town. Each of these aims provides a starting point for developing policies, programs and strategies. In turn, these recommendations become the guide for public and private actions. As identified, the broad aims of the Town of Corte Madera are:

Residents must be protected against dangers to life and property in areas where soils, geology, topography or other factors constitute a potential threat.

Residents must be protected against dangers to life and property in areas where seismic conditions constitute a potential threat.

Air, water, and noise pollution conditions should be mitigated to protect the health and safety of residents.

Corte Madera's natural resources must be conserved and maintained and their sound utilization promoted.

In both the local and regional setting, the small-town scale and character of Corte Madera should be preserved and enhanced.

A diversity of age groups and of social and economic backgrounds among residents should be promoted.

Existing neighborhoods should be protected to maintain quality residential neighborhoods for the continuation of the family-living life style.

An adequate level of public and private community-related services, as well as access to those services, should be provided.

A reasonable balance between public costs and revenues must be maintained.

Accessibility to jobs, goods, and services for all residents should be strived for in a manner consistent with environmental quality aims.

Avenues for effective citizen participation in the Town's decision-making process should be provided.

Natural habitat areas and related animal life must be protected.

Outdoor recreational resources must be safeguarded, including scenic, historic, and cultural values, as well as areas needed to meet the recreational needs of the community and the region.

These broad aims have been translated into more specific policies and programs in each of the seven initial elements of the General Plan: Land Use; Open Space and Conservation; Housing; Community Services and Commercial Facilities; Circulation and Scenic Highways; Seismic Safety; and Community Appearance and Environmental Quality.

The Land Use Element Map is a composite of a series of complex and detailed recommendations which appear as part of this General Plan. The depiction in the Land Use Map is necessarily broad. (Due to the complexity of the Land Use Plan and Associated Overlaying Maps, the Map series is not attached, but is available in the Community Services Department.) Yet the map and the accompanying overlays depict major policies around which the General Plan revolves: open space preservation along the ridgetops and shoreline areas; hiking and bicycle trails throughout the Town provide access to these open space areas; limited new residential areas provide room for family-oriented and moderate cost housing without greatly expanding the Town's population; commercial areas designed to provide neighborhood-level services appear throughout the Town; a regional commercial/office/industrial area provides both local and regional services; community facilities and services are upgraded and/or consolidated; and public transit is encouraged.

As well as summarizing physical policies, the Land Use Element Map also depicts the interrelationship between land use decisions. For example, the overall land use and circulation pattern recommended reinforces the Town's residential nature and maintains Corte Madera's small-town scale.

LAND USE SUMMARY. Each element of the Corte Madera Plan contains numerous and often interdependent recommendations. The sum of all those policies collectively comprise the Town's land use pattern. Major recommendations of each element are indicated below.

OPEN SPACE AND CONSERVATION. Every effort should be made to retain permanent open space in those undeveloped lands which exhibit high natural habitat value, impose severe development constraints of topographic and geologic and seismic hazard, or possess an important scenic, recreational, archeological or botanical resource.

Ridgetops and major slope areas should be directed toward permanent open space to provide a substantial natural greenbelt between communities and to reinforce the natural open space and wooded quality of Corte Madera.

A series of region-serving parks and open spaces should be developed for the benefit of Corte Madera and Marin County. These include a shoreline park in the filled areas of the Muzzi Property, a lineal park over the railroad right-of-way which will be combined with a pedestrian/bicycle trail, and hiking trails over the Tiburon and Corte Madera Ridges.

A series of local-serving parks should be developed throughout the Town which can serve all residents. This includes acquisition of Menke Park in the Town Square, San Clemente Creek Site for visual park use, and use of part of the undeveloped site adjacent to All Faiths Church for park purposes. In addition, a park with playing fields should be developed on a portion of the Koch site and both a lineal park should be developed adjacent to the access road in the Madera del Presidio area as well as a small park within the level portion of the area. The maintenance of the Town Park and upgrading of play facilities at the schools should be emphasized.

HOUSING. Residential areas should be protected from the intrusion of incompatible land uses and traffic problems. Programs should be instituted to upgrade the condition of older homes in order to maintain the existing character of Corte Madera's neighborhoods.

New housing should be controlled in undeveloped areas in order to provide a mix of housing types and costs to allow an increase in low and moderate income housing. The design of all housing should be compatible with the existing form and scale of the Town.

Subdivisions of larger homes, or the addition of new units, should be allowed under certain conditions in neighborhoods where it would not alter the living patterns and would be compatible with existing development.

Wherever possible the development of additional dwelling units should be encouraged to follow the guidance of the Town through the Planned Development District process.

COMMUNITY SERVICES. All Fire Department facilities and operations shall be updated as required.

Elementary school boundaries should be redrawn to conform more closely to neighborhood and Town boundaries in order to establish a sense of neighborhood identification and to reduce busing.

COMMERCIAL FACILITIES. A region-serving commercial/office/industrial area should be zoned in the U.S. 101 corridor as indicated on the Land Use Element Map between the north and south boundaries of the Town. To insure that the design of the area reflects its sensitive position in the Townscape this area shall become subject to Design Review. Additionally, the undeveloped portions of this corridor shall become subject to additional development standards and design criteria including but not limited to the following:

1. Off-site improvement costs are to be borne by the developer;
2. Permanent preservation of the 32 acre Marsh which surround the two ponds shall be accomplished;
3. Limit the development on the remaining 45 acres to not more than 670,000 square feet of leasable floor area;
4. The permitted uses shall be limited to office and commercial uses and designed to compliment each other through the guidance of the Planned Development District process;
5. Structures are to have a low profile enhanced by creative landscaping and reflect the aesthetic requirements imposed on the site by its position within the various view corridors between the Bay and surrounding hills;
6. No project is to be approved unless a satisfactory solution for the traffic generated by that use can be established and is proven to be feasible;
7. No occupancy permit is to be granted for any development until the associated traffic projects have been completed to the point necessary to facilitate the proposed development;
8. Require a long-term maintenance bond or other adequate guarantee against damage from future subsidence and related soils or physical problems that result from the proposed development;
9. All changes to surface or subsurface drainage due to any proposed development shall be countered by properly engineered projects (which might include pumping facilities, raised dikes, etc.) to protect surrounding areas.

Existing neighborhood and community-service commercial areas should be zoned to retain and enhance convenient shopping for residents at locations near their homes. This would include the upgrading of the Town Square area, Park Madera Center and the upgrading of lighting and landscaping of the Paradise Drive Shopping Center to serve residents of east Corte Madera.

The position of the commercial area situated between San Clemente and Paradise Drives is such that it forms the entrance way to East Corte Madera. To encourage this area to become more responsive to the location within the

Townscape, specific design criteria should be applied to the Design Review process now in effect.

CIRCULATION AND SCENIC HIGHWAYS. Freeway safety and circulation should be improved. The use of local streets as a bypass to the freeway during the commuter peak period should be restricted.

Development of rapid transit on or immediately adjacent to the U.S. 101 corridor and construction of a transit station north of Tamalpais Drive should be encouraged.

Intra-town transit service should be established to connect Corte Madera residents with rapid transit, shopping, and other public services and facilities.

Paradise Drive, San Clemente Drive, Tamalpais Drive, and Corte Madera Avenue should be designated local scenic roadways and U.S. 101 should be designated as part of the California Scenic highway system.

A network of pedestrian, bicycle and hiking trails should be developed throughout Corte Madera to link residential areas with public and private services and facilities of Corte Madera and adjacent communities.

SEISMIC SAFETY. Residents should be protected against natural hazards by prohibiting or controlling development on sites with hazards such as landslide, tsunami, subsidence, extreme topography, erosion, unstable geology and fire.

COMMUNITY APPEARANCE AND ENVIRONMENTAL QUALITY. The natural state of the ridgetops, visible slopes and unfilled shoreline areas, including the marshes, mudflats and other portions with unique natural habitats, should predominate. Further, existing vegetation, particularly the heavily wooded areas in the hills and the mature street trees should be protected.

A series of design district and design corridors should be instituted. Design criteria should then be established that reflect the individual character of these areas. Regulations concerning noise abatement should be strengthened and criteria should be developed to control land uses adjacent to such significant noise sources as the freeway. Air pollution levels should be reduced through encouraging more frequent use of public transit, and developments or activities which would diminish air quality should be discouraged.

IMPLEMENTATION SUMMARY. The policies listed above require three types of implementation techniques: regulation; public acquisition; capital improvement financing.

REGULATION. The major purpose of regulation is to insure that development takes place in a manner which recognizes the residential character of Corte Madera and reflects the small-town scale of the community. Regulation is also an important tool to assure that all development considers the limitations and advantages of a specific site, including seismic, geologic, topographic, scenic and public service factors. The purpose of such regulation is two-fold. First, it protects residents against dangers to life and property and, second, it helps maintain the natural setting of Corte Madera. While the major form of regulation is zoning, other ordinances can be enacted by the Town for use in conjunction with the requirements and criteria set forth in the Zoning Ordinance. Some of the regulatory techniques recommended in the Corte Madera General Plan are:

MANDATORY PLANNED DEVELOPMENT DISTRICT PROVISIONS would superimpose a Planned Development District overlay zone on some existing zoning. This would permit the Town to take the initiative and require the developer to employ design and construction techniques which are responsive to specific site conditions. The original zoning district would determine the type of land use permitted, but the "overlay" Planned Development District would contain provisions to relax rigid standards (e.g., setback, spacing between buildings, etc.) of the underlying zone and permit review of site planning and design.

NATURAL HABITAT PROTECTION DISTRICTS would be applied to Bayshore areas with unique natural habitat resources. This district would contain provisions prohibiting further division of land, restricting development to portions of sites with the lowest resource value, and providing design criteria to minimize both adverse impacts on wildlife and natural processes as well as alteration of the natural setting.

LAND CAPACITY ORDINANCE would be applied to hillsides to determine the development capacity of the land. The ordinance would consider factors of slope, seismic or other public safety hazards, road access, substantial natural habitat, and other information necessary to determine the maximum amount of development permitted on a site.

LOW AND MODERATE-INCOME HOUSING INCENTIVES should be used to encourage an increase in the provision of low and moderate-income housing in the projected residential developments in Corte Madera. Under this system, a developer could be granted a bonus to increase the number of units in his project above that permitted by the zoning if he includes a specified number of low and moderate-income housing units in his development. The incentive may allow an increase in dwelling units not less than 10 percent nor greater than 15 percent of the initial number of units.

SUPPLEMENTAL RESIDENTIAL ZONING provisions should be applied in Corte Madera to permit the addition of second units to existing homes or to allow the subdivision of larger homes to enable occupancy by more than one family. These alterations should require a conditional use permit subject to specific regulations regarding design, parking and effects on adjacent structures and the environment. Additionally, these units should be directed almost exclusively to low and moderate-income individuals or families.

RISK ZONING FOR BAY FILLS should be used in areas underlain by Bay Mud. Criteria should be developed for each of several zones containing engineering safety requirements, allowable land uses and site investigations necessary for development. Land use for fills over the deeper compressible soils should be so restricted as to prohibit development unless special precautions are followed.

DESIGN REVIEW ORDINANCE should be revised to insure that design review takes place during the initial planning stages and can be instrumental in affecting the outcome of the project. The Town will be required to designate residential and non-residential design districts, as well as design corridors for both scenic roadways and pedestrian/bicycle trails. In addition the Town should prepare and adopt explicit statements of community design objectives for these various districts and corridors. This approach has several advantages in that it provides the applicant with a clear statement of the conditions his development must observe before he starts his design, and it insures a sound legal basis for design review.

SIGN ORDINANCE should be amended to establish distinctive sign districts which can be applied as part of the design review process. The ordinance should clearly recognize that type, siting and size of sign should vary according to the function of the area, the manner in which the primary sign viewer experiences the sign (e.g., as a motorist or pedestrian), and the area's relationship to other districts or features.

HERITAGE TREE ORDINANCE should be enacted to protect mature trees in the Town from removal or damage.

PUBLIC ACQUISITION. In specific cases, particularly in regard to implementing many of the open space and conservation policies, it will be necessary for the Town to purchase lands to assure maximum public benefit. Some of the lands to be considered for future public acquisition include the Heerdt Marsh, Muzzi Property, Triangular Marsh, large portions of the Deffebach and Stevenson Properties, Nichelini Property, Upper Hidden Valley and Taralara.

A priority list for region-serving and local-serving open spaces has been developed. Factors considered are:

1. The degree to which the open space benefits are primarily local, and therefore, a local responsibility;
2. The degree to which the Town must rely on local funds as a source for acquisition because of a lack of other available resources;
3. The degree to which the major open space benefits can only be secured through public acquisition; and
4. The degree of vulnerability to development.

Many sources of funds have been explored and recommendations have been made as to the type to be used for each of the open spaces. These include local funds such as general funds, tax increment bonds, general obligation bonds; a Special Assessment District; county funds such as those available from the Marin Open Space District; State of California funds such as the Natural Habitat and Ecological Preserve Program; and United States Government funds such as the Federal Land and Water Conservation Fund and the Federal Open Space Land Program. In addition, the adjacent jurisdictions of Corte Madera, Mill Valley and Larkspur can form a district to acquire open spaces such as Northridge Lands or portions of the railroad right-of-way.

CAPITAL IMPROVEMENTS. Many of the circulation, public service, street design and some of the housing policies will require the use of funds from the Town's capital improvement program to achieve desired objectives. However, much of the Town's expenses can be supplemented by outside funds from the state and federal governments, particularly in regard to roadway improvements, housing rehabilitation, and in some cases, improvements in public services, such as sanitary sewers. The major source of local funds will be derived from property taxes and the local share of the sales tax revenue. In some cases, the Town has the option of using general obligation bonds.

OPEN SPACE AND
CONSERVATION
ELEMENT

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OPEN SPACE AND CONSERVATION ELEMENT

PURPOSES

The Open Space and Conservation Element serves to promote four basic aims: (1) conservation and sound utilization of natural resources; (2) protection of natural habitat areas and related animal life; (3) safeguarding outdoor recreation resources including scenic, historic and cultural values as well as areas needed to meet the community's and region's recreation needs; and (4) prevention of hazard to life or property where soils, geology, topography or other factors and combination thereof constitute a potential threat. General town-wide policies to achieve these broad aims are set forth below. These are followed by a description of special conditions which must be considered, more specific policies for critical sub-areas of the community and a program for assuring compliance with the policies of this element.

The provisions set forth serve to meet the legal requirements established in the State Law Government Code Sections 65302 and 65560 which mandate the addition of an Open Space and Conservation Element to the general plan. These two sections require the consideration and protection of the following: natural resources such as water and soils, wildlife resources, scenic beauty and recreation resources, plus avoidance of hazard to life and property due to natural factors or phenomena.

These open space and conservation provisions also provide the basis for preparing and adopting open space zoning provisions which are mandated in Article 10.5 (commencing with Section 65560) of the State Law. Thus, the intent of these present provisions is not to take or condemn any property, but rather to establish clear policies upon which to prepare development controls which will promote the aims set forth in this element and to provide a rational basis to establish priorities for expending public monies for open space acquisition.

Therefore, it shall be the policy of the Town of Corte Madera to aggressively pursue and initiate action to preserve and acquire open space, but nothing contained herein is to be construed as a present decision to acquire any particular parcel of property or interest therein.

TOWN-WIDE POLICIES

To achieve the broad open space and conservation aims identified above, a series of more definite, but not site specific, policies is outlined as a guide for future public and private actions in Corte Madera and its immediate environs. These policies, in turn, determine the specific community

position for specific and critical sites through the community, but with full recognition of the continuing legal rights of both the property owners and the community as a whole.

1. To preserve areas of significant marine and wildlife habitat value.
2. To preserve the natural appearance of hills, ridgelines and other prominent or significant landforms.
3. To protect the Town's wooded character by preserving established vegetation.
4. To maintain the Town's relationship to San Francisco Bay by minimizing alteration of the shoreline, assuring public access and protection and enhancement of Bay Views.
5. To safeguard areas and sites of historical and archeological significance.
6. To preserve in open space uses, sites having high recreation value or potential to achieve the minimum standard of 5 to 6 acres of active recreation facilities for each 1,000 Town residents; and to distribute the facilities so they are within easy access to all residents.
7. To provide for public access and levels of use of all open space areas commensurate with the ability of the open space resources to withstand use without degradation.
8. To enhance the recreational use and protect the quality of all open water areas in Town.
9. To protect scenic views from all major public areas.
10. To prohibit or regulate development on sites having history or threat of slope instability.
11. To prohibit or regulate development on sites having history or threat of subsidence.
12. To prohibit or regulate development on sites having history or threat of seismic dangers including those resulting from liquefaction, shaking, ground failure, ground rupture, tsunami and seiche.
13. To require detailed and comprehensive investigation of geologic conditions for all development in areas subject to geologic hazards.
14. To require detailed and comprehensive investigations of all sites; prior to development, to anticipate and avoid dangers of seismic hazards.
15. To maintain a substantial greenbelt spanning the southern boundaries to the Town for the purpose of separating Corte Madera from its neighbors and preventing run-on urban sprawl.

EXISTING CONDITIONS

A summation of existing conditions to be governed by these policies follows:

1. UNIQUE NATURAL HABITAT

a) This primarily refers to the natural habitat areas in the marshes and upland portions of the Bayfront which support a large diversity of marine and wildlife species, some of which are rare and endangered. Additionally, the marshlands and mudflats are important to the health and condition of the Bay waters.

2. SUBSTANTIAL NATURAL HABITAT

a) Although not fully documented as to species type and diversity, the hill and ridge areas support a large number of birds and small mammals.

3. SCENIC RESOURCES

a) Lands which are visually important to the local community and regional setting of Corte Madera including wooded areas and significant hill forms.

b) View locations from which vistas of the hills, ridges, San Francisco Bay or East Bay are available.

4. RECREATION RESOURCES

a) Sites which are now or have the potential to be active recreation areas for use by Corte Madera residents, or for low intensity recreational and educational pursuits such as that which may be possible on the already-filled portions near the Bayfront.

5. ARCHEOLOGICAL SITES

a) Areas of archeological importance which are mainly found in the vicinity of Ring Mountain where Indian petroglyphs have been discovered.

OPEN SPACE VALUES

There are several different types of open space lands in the Corte Madera planning area. East of U.S. 101 are low lying areas, some of which are marshes subject to tidal action. This includes the 95 acre generally known as the Heerdt Property, 74.1 areas of which is known as the Heerdt Marsh, the last remnant of the watery lowlands which formerly stretched from the shore of San Francisco Bay to the foothills behind Corte Madera, Larkspur,

Kentfield and Ross. This marshland still possesses all of the major inlets and has much the same appearance it did almost one hundred years ago.

South of the Heerdt Marsh and separated by a tidal slough is approximately 265 acres usually referred to as the Muzzi Property, a diked-off area bordered by the Northwestern Pacific Railroad on the west, San Francisco Bay on the east, and San Clemente Creek on the south. The dikes were constructed in the late 1950's and the flood gates closed in 1967, prior to the formation of the Bay Conservation and Development Commission. Although the diking sections have seriously reduced the productivity of the Muzzi Property (and other properties west of the railroad), the area does remain rich in wildlife because it has been left undeveloped. While portions of the property have subsided several feet below the original salt marsh elevations, it does flood with rain water during the rainy season and becomes an important resting and feeding area for a variety of marsh and shore birds and many ducks, including such rare and endangered species as the California clapper rail, white-tailed kite, burrowing and shorteared owls, among others.

There are two sections at the southern end of the Muzzi Property which have been colonized by upland grasses and weeds. The eastern section is predominantly in salt marsh plants such as pickleweed and salt grass, and the thick turf provided by these plants enable nesting and feeding areas for marsh hawks, herons, owls, and meadowlarks. In the western section, egrets, herons, ducks and coots feed in or near-by the small ponds formed by the rains.

The fringes of salt marsh around the Muzzi Property is subject to tidal action and is in a healthy condition. The many shorebirds, ducks and marsh birds of San Francisco Bay utilize these fringes for shelter or food both directly and indirectly. The third, and only other tidal salt marsh in the area is the 11 acre triangular marsh adjacent to the San Clemente School near Paradise Drive. Similar to the Heerdt and Muzzi marshes, the Triangular Marsh is in private ownership except for the possibility that public rights in any of them may exist under the rationale stated by the California Supreme Court in the Gion and Dietz decisions.

West of the Muzzi Property and the railroad tracks is a 70 acre parcel known as the Hahn Property, an area diked off from tidal action in the late 1800's. The northern portion contains two ponds which support a great number of aquatic plants and animals, but probably as a result of the variable salinity of the ponds (due to flooding, leaching and evaporation), the species diversity is low. However, a large variety of birds, including dabbling ducks, grebes, herons, egrets and northern phalarope use the ponds for feeding and resting. The edges of the ponds support salt-tolerant vegetation typical of salt marshes, such as salt grass, alkali heath and some pickleweed. The area is also a rich meadow mouse habitat.

A drainage ditch bisects the property and another borders the railroad tracks. South of the drainage ditch the area is mostly filled and covered with typical grassland vegetation with a large population of meadowmice. Egrets, herons, short-eared owls, several species of hawks, white-tailed kites and the burrowing owls that live along the banks of the drainage ditches all hunt extensively over this area. Since raptors, which include hawks, kites

and owls, are all considered endangered due to loss of habitat, much of this property assumes great importance as wildlife habitat.

Other major open space lands in Corte Madera include the hills and ridges which not only support many species of wildlife, but also provide a natural greenbelt between the communities of Corte Madera and Tiburon to the east and south and Mill Valley to the west and south. The existence of this visual amenity of woods and openness contributes to each community's individual identity by providing distinct town boundaries, thus lessening the visual impact of such a highly urbanized area. However, similar to the Bayfront lands previously discussed, much of the ridge and hill areas are in private ownership and are subject to development pressures. The large Deffebach and Stevenson Properties in and around the Tiburon Ridge east of U.S. 101 lie mainly in unincorporated areas and have been proposed for residential development by the owners, even though large segments of these properties exhibit geologic conditions which may be hazardous to life and property if built on.

West of the freeway is the Northridge, an area in excess of 1,300 acres, approximately 95 acres of which lie within the corporate limits of Corte Madera. The major portion of the area is generally referred to as the Nichelini Property and housing proposals have also been made for this site.

DEVELOPMENT CONSTRAINTS

A large portion of the undeveloped properties within the Town's planning area is subject to a variety of hazards or constraints. This will require that development of these sites either be prohibited or restricted with careful regulation in order to safeguard and protect against danger to life and property. Generally, these constraints include topography, geologic conditions and seismic hazards. The Development Constraints Map, on file in the Community Services Department, summarizes these three conditions where they exist in the undeveloped portions of the planning area. Specifically, the map shows the following limitations on the development of the land:

1. Topography

- a) On slopes greater than 40 percent all development should be prohibited in the absence of extensive soils analysis and engineering feasibility study.
- b) Slopes ranging from 20 to 40 percent where development should be restricted through the use of specific regulatory controls.

2. Geologic Hazards

- a) This includes sites which are known to contain large areas of melange, the term applied to sheared rocks of the Franciscan Formation,

which are particularly susceptible to landsliding and necessitate extreme care when designing cut slopes or structure foundations on them; areas of slope debris and ravine fill; and areas where landslides have occurred. Even though some older slides may be partially stabilized, they are susceptible to renewed movement if their natural conditions of slope, drainage or moisture content are disturbed. It should be noted that the mapping of these geologic hazards has not been done in detail and, therefore, thorough investigations should be conducted to determine possible dangers in areas subject to geologic hazards prior to any development.

3. Ground Failure and Subsidence

(a) Where there are areas of man-made fill or Bay Mud where differential settlement, liquefaction and other seismic dangers may occur, a detailed and comprehensive investigation should be made of these areas prior to any development.

4. Tsunami

Where areas are known to be subject to possible tidal wave inundation, extensive engineering and drainage plans shall be required prior to development.

RECREATION

There are relatively few local or county-wide parks for active recreation to serve about 160,000 persons living in southern and central Marin County. National and State parks and recreation areas in this portion of Marin--- including Muir Woods, (the newly formed Golden Gate National Recreation Area), Angel Island, Mount Tamalpais, Stinson and Muir Beaches and Marin Headlands which are mostly for hiking and picnicking and are difficult to get to without an automobile. (Angel Island requires ferry access.) A large portion of the people favor water-based recreation facilities for swimming, fishing, boating, walking, picnicking, camping or just for looking. Yet, most of the parks enumerated above are inland and wooded and have few water-related facilities. With the possible exception of Stinson Beach, those that are situated by the water (mainly the Pacific Ocean) are too dangerous for most water-related sports.

There are only two major parks along San Francisco Bay in Southern or Central Marin. The first is the county-maintained McNear's Beach Park (53 acres with picnicking, fishing and swimming) located on the Bay near Pt. San Pedro north-east of San Rafael, but this is not conveniently located for most Southern Marin Residents. The second, 19-acre Paradise Beach Park, about five miles southeast of Corte Madera. Together, these two parks offer less than 0.5 acres of Bayfront land for every 1,000 persons living in southern and central Marin, a suprisingly low figure for an area whose eastern boundary is San Francisco Bay.

Throughout Marin County, including Corte Madera, there is an absence of level, open-park lands suitable for general recreational purposes. The few acres of level park land in the Town are comprised of the Corte Madera Town Park, a 20 acre area on Tamalpais Drive west of the freeway. This park is intended to serve the entire Town population of over 9,000 persons (about 2 acres/1,000 persons), but not only is the park insufficient in area if it is to serve all residents, it is also inconveniently located for the 27 percent (2,450 persons) of the population that live east of U.S. 101. The residents in that portion of Town mainly rely on small recreation areas in conjunction with the San Clemente and Granada Schools.

Although it may appear arbitrary to designate an acre/1,000 persons standard for parks, it does tend to reflect an increasing population and can serve as a bench mark of the amount of space needed. Figures vary among publications and associations, but the average appears to be about a total of 5 to 6 acres of citywide park and local neighborhood play-ground facilities for each 1,000 persons. However, these figures do not reflect private recreation areas and indoor facilities such as the Recreation Center on Tamalpais Drive adjacent to the Town Park, but such facilities can be taken into account when planning new sites.

SPECIFIC AREA POLICIES

Specific area policies are illustrated in the Open Space and Conservation Policy Map, on file in the Community Services Department. These definitive policies focus on the Town-wide policies enumerated at the beginning of this element by making these broader objectives site specific through the application of the information provided in the Open Space Values and Development Constraints Maps, on file in the Community Services Department. The combination of these latter two maps indicate that most of the undeveloped sites exhibit more than one value or development constraint which warrant its consideration for preservation, therefore, the Open Space and Conservation Element Map indicates the primary aim considered to be significant in itself to require preservation or protection, as well as one or more secondary aims (where applicable) which further contribute to the importance of the site to be included in this joint element. In the Bay-front areas, the unique nature of the natural habitat is considered as the primary aim, whereas along the hills and ridges, either scenic or hazard prevention is recorded as the primary aim. Although the entire ridge top area is considered to be scenic, protection of life and property against hazards is regarded to be the primary purpose for preservation. Therefore, scenic preservation areas along the ridge tops are shown as primary aims only in locations where they do not co-exist with topographic constraints or geologic and seismic hazards.

The primary and secondary aims applied to the specific areas which are delineated on the Open Space and Conservation Policy Map, are listed below.

PRIMARY AIMS

- a) Natural Habitat Protection. Areas identified as unique natural habitat in the Open Space Values Map.
- b) Scenic Preservation. Locations cited for their important scenic value in the Open Space Values Map provided these areas do not also contain topographic or geologic and seismic hazards as indicated in the Development Constraints Map.
- c) Hazard Prevention. Locations which should not be developed because of potential danger to life and property as indicated in the Development Constraints Map. These specifically refer to topographic or geologic hazards in the hill and ridge areas.
- d) Recreation Area. Sites which should be preserved primarily for their ability to provide needed recreational facilities.
- e) Existing Recreation Area Improvements. These are recreation areas which, when improved, will offer Town residents a more complete, diversified and geographically distributed Town-wide recreation system.

SECONDARY AIMS

- a) Natural Habitat Protection. Areas which exhibit significant natural habitat value.
- b) Scenic Preservation. Areas which are scenic in themselves but are secondary in their importance for preservation to other primary aims, or areas which provide view locations as indicated in the Open Space Values Map.
- c) Hazard Prevention. Areas which contain hazards or topographic constraints, but are not necessarily regarded to be dangerous enough to prohibit development if specific regulations and controls are imposed.
- d) Recreation Areas. Open space sites which can also accommodate low-intensity recreation activities such as trails, picnicking, etc.
- e) Archeological Protection. Areas which have been identified to contain significant archeological sites.

A description of the "specific area policies" follows.

The policy description of the respective open space sites sets forth the allowable use and related conditions for development in the event that the public is unable to acquire sites recommended for permanent open space. It shall, however, be the policy of the Town to fully explore and seek to obtain all feasible funding sources prior to permitting development on sites designated for permanent open space. The Town shall also seek cooperative funding agreements with adjoining communities where the open space

sites extend over the town boundaries or in areas which serve residents of adjoining communities. A brief reference to the primary funding source is included under each area discussion. Starting on page 20 a fuller description and discussion of funding sources is provided.

TIBURON PENINSULA RIDGE. Analysis of the approximately 546 acres of undeveloped lands along and adjoining the Tiburon Ridge show that : (1) Less than 294 acres, or 54 percent, of the entire area is suitable for development as determined by consideration of geologic hazards and topographic constraints; and (2) all of this area has high scenic value, principally the 110 acre ridge top (20 percent of the entire area) which provides the last open space separation between communities in southern Marin, provides sites of archeological importance, or a combination thereof. The remaining property is considered to be a scenic resource (as well as containing habitat areas) both for its hill form and wooded vegetation in selected portions. Moreover, problems of providing on and off-site roads and other public services are severely restricted by all of these same factors. This is especially true along ridge tops where water is not readily available. Roads must transverse rugged lands which increases construction and maintenance costs for roads and utilities. These constraints lead to economic pressures to provide greater levels of development to compensate for these high land preparation and service costs on a site which is capable of supporting only a limited number of dwelling units.

The diverse geology of the area is also especially noteworthy and the areas importance as a scientific and educational resource must be recognized. Furthermore, the geologic conditions have also produced unique botanical conditions in the portions underlain by serpentine. For this reason the serpentine areas have been shown as having unique habitat value.

With recognition of these factors, it is the policy to seek to retain in open space all of the lands shown in the Tiburon Peninsula Ridge area which includes upper Madera del Presidio on the Open Space and Conservation Element Map. The Open Space and Conservation Element Map is a consolidation of the three Basemaps showing Open Space Values (OP-1) Development Constraints (OP-2) and Open Space and Conservation Policy (OP-3). The entire area (additional ridge top lands exist outside of the Corte Madera planning area under the jurisdiction of the City of Tiburon) should be considered for public purchase at a price which reflects a realistic development potential. Often, assessed valuation is based upon an assumption of the development capacity of an area without due consideration or investigation given to the development constraints which are imposed on the land.

In the event that it is not deemed feasible to acquire these lands within the immediate future, limited development may be permitted. In these portions of the site where development may be permitted, it must be proved by soils analysis and engineering feasibility studies, that the topographic conditions and the geologic hazards that are present can be dealt with in a manner that would not impinge on the aesthetic values mentioned above and would eliminate any threat to the health, safety or welfare of the residents of Corte Madera. Additionally, the ridge top should be preserved in open space with

buildings and other structures, including roads, sited on the lower portions in a manner which preserves the natural open space appearance of the entire ridge and guarantees protection of existing petroglyphs. The ridge top area to be preserved is defined as a combination of the area within a line 150 horizontal feet in both directions from the top of the ridge plus a line 150 vertical feet in both directions from the top of the ridge, as well as other lower protruding ridges which give the appearance of being the ridgeline when viewed from surrounding areas. Stringent design controls should be applied to insure that permitted development does not alter existing land forms and vegetation, and that the overall natural appearance of the area is maintained.

The most reasonable sources of open space funding appear to be a combination of County Open Space District Funds and special assessment district funds. Additionally, other supplementary funds from private foundations should be sought because of the scientific and educational values.

NORTHRIDGE AREA. The heavily wooded Northridge serves as one of the major open space components of southern Marin. The forested ridge and slopes function as a natural separation between Corte Madera and Mill Valley and provide the dramatic natural backdrop to the Town which contribute so much to its small-scale appearance. These Northridge lands also act as a visual and physical link to the more extensive state and county open spaces around Mt. Tamalpais and offer the potential for linked and complementary hiking and recreation uses. The proximity to the concentrated populations of southern Marin make this general area ideal for these recreation purposes. Moreover, the vegetation consisting of oak, madrone and bay plant communities, redwood groves and grassland provide a diverse habitat for a wide variety of small mammals and birds. The portions of the ridglands west of Corte Madera Avenue are especially valuable since they are still uninterrupted by urban development and remain an integral part of the extensive open space of the adjoining watershed and state parklands.

Within the Town, four separate sites, the Nichelini Property, upper portions of the Quarry area and knoll portions of the Upper Hidden Valley site, as well as Tara Lara help form the more extensive Northridge area. In total, there are approximately 85 acres of undeveloped land in this portion of Corte Madera. Of this 36.7 acres have grades in excess of 40 percent and 29.5 acres have grades between 20 and 40 percent. There are no known major geologic problems, but the combination of topography, climatic conditions, vegetation, restricted road access and limitations on water service and pressure make this area especially prone to fire dangers. Consequently, the potential for urban development is severely restricted. Policies for each of these areas are discussed below, the overall intent of which is to develop a system of hiking trails and scenic and natural habitat areas which are an integral part of a larger, county open space area.

Due to the overlapping of governmental jurisdiction and the county-wide and area-wide open space benefits of the Northridge, funding should be the joint responsibility of the County and adjoining communities. Therefore, use of the County Open Space District Funds and monies raised by a special assessment district of surrounding areas is recommended.

NICHELINI AREA. Due to the high scenic and recreation value, the undeveloped lands occupying the ridge and north-facing slopes should be considered for acquisition for public open space use. In the event that sufficient public funds are not available for acquisition, development controls should be instituted to ensure proper development.

These regulations should require that: (1) existing major vegetation on the site be preserved; (2) development be limited to areas with adequate access and water pressures to provide reasonable fire safety standards; (3) the ridge top be protected from intrusion by development which would destroy the natural skyline as seen from both Corte Madera and Mill Valley; and (4) hiking access along the ridge be provided. If development must be accommodated, structures should be clustered and access be provided by a series of short, lateral connections to existing improved roads to ensure the minimum physical and visual disruption.

TARA LARA SITE. The heavily forested, 7.2 acre Taralara is an important portion of the Northridge area. Its present use, a single residential structure screened from public view, is consistent with the plans policies to preserve the natural features of this area. Provisions should, however, be made to ensure that in the future, this site is not subdivided for more intensive residential development. Ultimate public acquisition of the site is a recommended possibility.

UPPER HIDDEN VALLEY. The primary importance of the Upper Hidden Valley site results from its scenic contribution both as a part of the landscape backdrop of Corte Madera and Mill Valley and as a location offering a wide range of panoramic views out over Southern Marin. This area offers a unique opportunity to provide a natural area in the midst of an already urbanized one, yet buffered from the visual intrusion of development and noise of the nearby freeway. It is within convenient hiking distance from both Corte Madera and Mill Valley and provides either a dramatic start or finish point for recreation hiking along the Northridge.

It should be the policy to achieve total public ownership of this site. However, if this proves impossible, conditions similar to those proposed for the Nichelini area should be enacted. The most important concerns should be provisions of a hiking connection with the Quarry site and a westward link to the other portions of the Northridge, and preservation of the prominent northeast knoll.

QUARRY SITE. To the extent feasible, the heavily wooded upper portion of the Quarry area should remain in open space and trail access from the lowlands to the Northridge be provided. The heavily wooded areas are very steep and should probably remain free of development in any case. In turn public access for hiking purposes may be provided as a condition if a planned unit development approach is required for the site.

BAYSHORE AREAS. Critical Bayshore areas consist of the Heerdt Marsh, the Muzzi Property, portions of adjoining lands lying between the Northwestern Pacific Railroad right-of-way and U.S. 101, and a triangular shaped marsh area along Paradise Drive. The areas having high natural habitat value are shown in Figure 1, the most valuable of which are the prime marsh areas which encompass the great portion of the Heerdt Property, the triangular area along Paradise Drive and the eastern edge of the Muzzi Property. Additionally, adjoining areas contain other upland habitat values or offer the opportunity for restoration to their original wetland state.

Since these areas are crucial to the health and existence of the many marine and wildlife species, it is essential that all proper steps be taken to protect these natural resources or to enhance them where degeneration has occurred as a result of unregulated urban condition. The Open Space and Conservation Element Map, identifies the areas which should be retained in a natural state if these goals are to be met. More specific policies pertaining to each of these areas are provided below.

State and Federal funds should be pursued for acquisition of the natural habitat areas of the Bayshore lands since these are resources which benefit a much broader segment of the public. Moreover, there are special state and federal funds specifically authorized for this use. Additionally, local and county funds should be used to acquire and develop filled portions for shoreline recreation purposes.

HEERDT MARSH. The primary natural resource value, the marshlands, are subject to the same regulatory powers as any other property, and since portions of the properties are filled areas which might be developed, this could provide the property owners with an appropriate economic return. Nevertheless, it is proposed that, if feasible, the entire area be publicly acquired in order to use the upland portions for recreation and education purposes complementary to the natural area. (It should be noted that the public may already have legal rights in this property pursuant to the doctrine set forth in the Gion and Dietz decision as previously mentioned.) Uses should be restricted to low-intensity shoreline recreation purposes such as picnic facilities, wildlife observation and support facilities for nature interpretative purposes.

MUZZI PROPERTY. The area's high natural resource value, combined with constraints to development due to underlying Bay Mud and threat of partial inundation by tsunami, point to the need for retaining the major portion of the site in open space. The primary purpose of the open space should be twofold: preservation of high value habitats and restoration of diked-off former marshlands, in order to return them to a more productive habitat state. A limited portion of the site, approximately 49.5 acres on already-filled land with low habitat value, should be developed as a shoreline park. An additional area of approximately 25 acres, also on partially filled land, is designated for other land use purposes. An alternative use of this 25 acres is an expansion of the shoreline park site.

Consideration should be given to using the open space as a laboratory to test and monitor the effectiveness of restoring diked lands to a healthy state. Contact should be initiated with the universities and foundations involved in marine research to determine their interest in this effort. The site's central location in the Bay Region makes it ideal for this research function and as a teaching facility.

Marina uses should be specifically excluded since this would require dredging and construction of the access road across areas of high natural habitat value. Moreover, support facilities required such as parking, boat launching, as well as commercial facilities usually required to make marina development economically feasible would preempt additional high value habitat areas.

The entire area should be acquired or maintained in open space to provide for both shoreline related recreation use and natural habitat needs. These twin aims can be achieved by several alternative methods or combinations thereof, including purchase or other means of acquisition or regulation. The Habitat Preservation District provisions suggested in the implementation section of this element would be especially applicable if there is a heavy reliance upon a regulatory approach.

HAHN PROPERTY. The northernmost portion of the area bounded by U.S. 101, the Northwestern Pacific Railroad right-of-way and Tamalpais Drive contains several diked salt marsh meanders bordered by salt grass and pickle-wood fringe and adjoining grasslands, the combination of which support a diverse wildlife population. This area of approximately 32 acres, should be retained as open space, should have steps taken to improve the habitat conditions and, along with the natural habitat areas of the Heerdt and Muzzi Properties, should be unified and managed as a single entity. Vehicular access through the large areas should be prohibited, but there should be limited provisions for pedestrian and bicycle access for purposes of wildlife observation and enjoyment of the natural setting. In the event that the Lower portion (48 acres) of the site is used for a commercial development, as described in the Land Use Element, further consideration should be given to the protection of the 32 acre natural habitat area.

TRIANGULAR MARSH. Although physically isolated from the areas discussed above, the 11 acre salt marsh along Paradise Drive should remain in its natural state. Since it constitutes only a portion of a larger 21 acre site, it may be possible to ensure its preservation by regulatory means.

RECREATION AREAS

In addition to the previously described open space lands, selective areas throughout the community offer other advantages, particularly for more active types of recreational pursuits. The plan identifies these areas and the intent is twofold: (1) to provide a diversity of recreational opportunities and (2) to provide for a convenient distribution of recreational facilities throughout the community. Policies for these respective areas are set forth below. Each of these should not be seen as isolated sites, but rather as a complementary system of open spaces. (The Circulation Element of the Corte Madera General Plan deals more extensively with the pathway connections between these areas and to the various neighborhoods served.) For the most part, the sites identified below primarily serve the residents of Corte Madera and will, therefore, be heavily dependent upon local funds for acquisition. The most feasible source of open space funds are general obligation bonds.

SAN CLEMENTE CREEK SITE. A small, .975 acre site on Paradise Drive adjoining the fire sub-station provides the only public view of and access to San Clemente Creek. It is proposed, therefore, that this view be maintained and water access be assured for all Town residents. The recreation potential of the site is further enhanced by the possibility that the neighboring fire sub-station grounds could be converted to recreation purposes and made part of this park area. Several alternative ways of achieving the open space objectives for this site are possible: (1) outright public acquisition; (2) partial acquisition of sufficient land to preserve views and access to the water; (3) required dedication of access and protection of view through land use controls. Although of importance, this site's priority for Town acquisition is less significant than other recreation sites in east Corte Madera and, therefore, the third course of action may be most appropriate.

SITE ADJACENT TO ALL FAITHS CHURCH. A series of site features suggest that the use of this 8.7 acre site be for recreational purposes. Included is its central location to the residents of east Corte Madera, its proximity to neighborhood schools, and the presence of Bay Views and a series of terraces which permit onsite separation of various recreation activities.

In planning studies to date, this site has also been recommended for residential uses. This is not seen as a conflict, but rather as an opportunity for cooperative action by the Town and a housing sponsor. This, of course, would require a very carefully prepared overall site plan.

MADERA DEL PRESIDIO AREA. In addition to the natural areas which form a portion of the Tiburon Ridge, there are other portions of the site that represent both substantial natural habitat and scenic resources (as shown on the Open Space Value Map, OP-1). Additionally, areas that represent potential recreational resources are shown as a trail system running the length of the spur ridge to the old Northwestern Pacific Railroad right-of-way to Paradise Drive and a large meadow area adjacent and south of the Hidden Valley Ranch.

KOCH SITE. A major portion of the Koch property, approximately 28.5 acres is presently undeveloped. The site is level and would be appropriate for field sports which cannot be easily accommodated on other sites because they are either too small or have topographical constraints. Therefore, further consideration should be given for the use of a portion of the site for recreational purposes. Although not centrally located within the east Corte Madera area, the site is easily accessible by foot or bicycle from most areas east of U.S. 101.

CORTE MADERA CREEK SITE. Two undeveloped parcels still remain along the south side of the Corte Madera Creek within the Town of Corte Madera. It is recommended that provisions be made for public boat launching accommodations within this area. These facilities should be suitable only for small boats such as canoes, rowboats and kayaks rather than for larger crafts requiring more extensive ramp facilities and boat-trailer parking accommodations. Due to the extremely high land cost of these parcels, the Town should require either dedication of a small portion of these sites for this purpose, or an easement to provide access to the creek.

NORTHWESTERN PACIFIC RAILROAD RIGHT-OF-WAY. Portions of the Northwestern Pacific Railroad right-of-way lying east of U.S. 101 and within the Corte Madera Redevelopment Area, with the exception of that portion included in the commercially zoned area should be secured for use as a lineal park and trail system accommodating pedestrians and bicyclists. It is essential that the right-of-way be developed as an integral part of a larger system linking with the San Quentin Peninsula, as well as with those portions of the right-of-way lying west of U.S. 101 which will afford trail access across the freeway and into the adjacent communities of Mill Valley and Larkspur and subsequently a county-wide system.

The right-of-way varies in width from 50 to 150 feet and this permits both provisions of these trail needs plus accommodations for other recreational purposes. A more detailed park development plan should be prepared for the entire network so that specific recreation needs of adjoining neighborhoods can be incorporated, and other special features provided where desirable. In total, the right-of-way would provide approximately 40 acres of land for these purposes and 3.3 miles of trails.

MENKE PARK. A small open space located in the Town Square is presently owned by the Northwestern Pacific Railroad. Steps should be taken to acquire the site for the Town to assure its retention as the open space focus for the adjoining commercial uses and as a small park feature along the lineal park described above.

EXISTING SCHOOL SITES. Existing school sites serve as an important part of the community's open space and recreational land supply. Additional attention should be given to these areas so that they may fulfill these roles to a greater extent than at present. The Town should enter into cooperative agreements with the School Districts to permit improvements of the school sites for broader community recreational use. Included should be programs to provide more attractive landscaping of the often sparse-appearing play areas and the development of more neighborhood park-type facilities. Ideally, these improvements should be undertaken as neighborhood projects in which local residents can contribute their ideas and labor to the project.

RECOMMENDED IMPLEMENTING APPROACHES

The Open Space and Conservation Policies suggest retention of 19 areas in Open Space (excluding existing recreation sites) for scenic preservation, habitat protection, hazard prevention, archeological protection, or recreational purposes. To achieve these policies, it is proper to rely upon two methods of implementation, regulation and public acquisition. Regulation, such as zoning, should be used when the primary intent is to protect the public interest, e.g., in preventing development in hazardous areas or prohibiting development practices which will adversely affect other portions of the community. Public acquisition, however, should be used when the primary intent is for public land use, such as for park or recreational purposes.

The success of the open space portion of the general plan will depend upon a balanced use of these two methods. Care should be taken to ensure that the public is not required to acquire lands to eliminate problems which are justifiably the subject of regulation and, conversely, that regulations are not used to deprive property owners of reasonable use of their land. Appropriate regulatory methods are set forth below and are followed by a discussion of acquisition methods and priorities for acquisition.

REGULATORY METHODS

Suggested regulatory methods serve two purposes: (1) to ensure that development

takes place in a manner which recognizes the limitations and advantages of the specific site, including seismic, geologic, natural resources, topographic, scenic and public service factors; and (2) to ensure that land cost accurately reflects reasonable, rather than inflated value. The latter is of special concern since the public should not acquire lands for public use at a price based upon unrealistic assumptions of development potential. Thus it is important that appropriate development controls be instituted even for properties proposed for public acquisition. Similarly, private developers are often forced to purchase land based on a landowner's assumed but unobtainable estimate of development potential, thereby needlessly increasing the price of housing.

MANDATORY PLANNED UNIT PROVISIONS. Generally, the undeveloped sites remaining in Corte Madera have been by-passed because of specific problems or limitations. For these sites, standard zoning and subdivision provisions designed for level, more readily buildable situations are inappropriate. Therefore, it is recommended that the Town use of the Planned Development District in its zoning ordinance and assign this District to remaining undeveloped parcels of one or more acres. This would permit the Town to take the initiative and require the developer to employ design and construction techniques which are responsive to the specific site conditions. The Planned Development District provisions can overlay the existing zoning district. The latter would determine the type of land use permitted and the Planned Development provisions could relax rigid standards of the underlying zone and permit review of site planning and design. This would allow for a range of flexibility within the present zoning ordinance.

NATURAL HABITAT PROTECTION DISTRICT. The Town's zoning ordinance fails to take into consideration the unique situations of the Bayshore areas. In order to protect the natural habitat resources of the wetlands and related uplands, it is proposed that a Natural Habitat Protection District be added to the Town's zoning ordinance. These provisions are intended to be applied to the entire Heerdt and Muzzi Properties, the northern half of the Hahn Property, and the Triangular Marsh and adjoining lands along Paradise Drive which are in a single-ownership. Briefly, the recommended provisions would: (1) prohibit further divisions of land which would inhibit preparation of a site plan capable of adequately considering and protecting areas of high natural resource value; (2) restrict development, including roads, parking areas and structures to those portions of the site with lowest resource value; (3) impose a maximum site portion which can be devoted to development based upon documentation of natural resource value, and other appropriate considerations and (4) require placement and design of structures, including roads, utilities, parking and buildings, in a manner which minimizes adverse impacts on wildlife and natural processes and alteration of the appearance of the natural setting.

LAND CAPACITY ORDINANCE. Most of the remaining hill lands in Corte Madera have a number of constraints to development, many of which are discernible only with detailed analysis. It is proposed, therefore, that the concept pioneered by many local slope-density ordinances be refined and an ordinance be drafted to consider other factors directly related to the development capacity of any given piece of land. In addition to the considerations of slope, the following factors should also be used as the basis for determining allowable density:

1. Areas with high hazard potential, i.e., seismic, flooding, or landslide danger;
2. Areas which, though of buildable slope, are physically isolated by steep slopes which preclude reasonable access and, for all practical purposes, make the site unbuildable;
3. Areas with "substantial natural habitat value" which, under the provisions of Assembly Bill 1301, may not be developed;
4. Areas which can only be served by a cul-de-sac, the length of which exceeds a reasonable distance for purposes of fire protection.

With detailed soils and geologic information, allowable density could also be determined on the basis of percent slope and susceptibility of slope failure, erosions, etc.; due to specific soils or geologic conditions. For example, a 20 percent slope with highly erodible soils may be more restricted than a 30 percent slope where erosion or slope failure is not a problem.

One of the primary values of this Land Capacity Ordinance would be to assure that the sale price of land reflects its true development potential, not an inflated value based on an unrealistic appraisal of development capacity. At the present, the latter is often the case. This eventually results in pressure to permit densities which require an economic return based on the sale price and, in turn levels of development inappropriate for the specific site. If the recommended provisions were adopted, the buyer would be required to adequately assess the development capacity of the land in advance and arrive at a price consistent with the specific conditions of the site.

With these provisions in effect, the Town would continue to map existing zoning districts, selecting the district whose permitted uses and conditions relative to type and characteristics of a structure most appropriate. The final decision on allowable density however, would be determined eventually by application on the allowable land capacity provisions.

REVISED DEVELOPMENT REVIEW PROCEDURES. Existing procedures relating to the submittal of all planned development applications, rezoning requests, conditional use permits, tentative and final subdivision map submittal, draft and final environmental impact submittals, design review proceedings, grading permits and building permit applications should be reviewed and revised where necessary to ensure that data pertaining to environmental factors such as resource values or natural hazards are adequately documented at appropriate decision points. The revised provisions should require

environmental data and analysis at the initiation of the planning and design stage by the applicant in sufficient depth to establish a concept plan compatible with the requirements which would emerge from a well prepared environmental impact report (EIR). It is recommended that much of the information and analysis required for the EIR be submitted in advance in preparation of a conceptual plan and be used as the basis for preparing the conceptual plan. The conceptual plan, in turn, should be approved in principal by the Town prior to initiation of subsequent and more detailed planning and design and the draft EIR refined and expanded upon once the more detailed plan is completed. In many instances this will require submittal of data such as soils and geologic investigations and preliminary grading at an earlier point than is now required by the Town's present ordinances. Consideration should also be given to the consolidation of certain review procedures, such as the EIR and Design Review to promote greater efficiency and more importantly establish greater consistency in the decisions made.

OPEN SPACE ACQUISITION PROGRAM

The primary intent of the open space acquisition program is to sort out those sites best situated to ensure maximum public use, and to determine which levels of government should be responsible for acquisition and maintenance of those lands. Table 1 identifies the major open space sites considered in the General Plan, summarizes the values and constraints associated with each, and recommends the primary method to secure the open space aim. For the latter, while the table identifies only the primary means, it does assume the backup of regulations which makes acquisition reasonable. Therefore, in the case of the Muzzi Property, Heerdt Property, Tiburon Peninsula Ridge Lands and Northridge area, development would be limited to appropriate areas, and the acquisition price determined by that land area. For example, the Heerdt Property is proposed to be zoned in the Natural Habitat Protection District. This would protect against intensive development in the marshland, but would permit development on the already filled portion of the property. Thus, the value of the property would tend to be based on the development potential of the filled area rather than the entire 95 acre site, (but again, bearing in mind the possible effect of the Gion and Dietz decisions).

ACQUISITION PRIORITIES. Inherent in the preparation of an acquisition program is the establishment of relative importance, or priority, of each open space area. The setting of priorities is a difficult task on several counts. Not only do opinions vary among citizens as to which attributes and aims are more significant to the Town's well-being than others, but also some open spaces primarily serve regional public interests, some are only of local concern, and yet others are a combination of both. The question then arises as to the priority for acquisition based upon the various

governmental bodies concerned. Since it is the intent of the Town's General Plan to provide the basis for action by the Town Council and also for other involved or affected public bodies. Table 2 lists sites in the order of their open space importance and serves as a general guide to the county and other non-local agencies. The main open space concerns reflected in the ranking are: (1) preservation of scarce natural habitats; (2) preservation of the natural scenic setting of southern Marin and the identification of communities resulting from prominent natural features; and (3) promoting opportunities for establishing a county and inter-community recreational system. As indicated in the table, several sites have the same composite ranking. These can be considered to be a priority cluster since no attempt has been made to differentiate individual priority of sites within the same composite ranking.

Table 2 lists sites in the order in which local funds should be expended for those open spaces which would require acquisition as indicated in Table 1. Factors considered are: (1) the degree to which the open space benefits are primarily local, and therefore, a local responsibility; (2) the degree to which the Town must rely on local funds as a source for acquisition because of a lack of other available resources; (3) the degree to which the major open space benefits can be secured through public acquisition; and (4) the degree of vulnerability to development. With respect to consideration No. 2 above, the degree of availability of other than local funds, the Town should fully explore the possibility of acquisition through other financial sources before attempting purchase through local general funds or general obligation bonds. The newly formed Marin County Regional Park and Open Space District has funds available for open space acquisition, the State of California has various programs with funds available to cities for recreation and wildlife preservation and conservation, the federal government has several programs which can be applied to recreation land acquisition, wildlife restoration and area maintenance. In addition, sites with significant portions in public hazard zones may be retained through stringent development regulations and design standards to ensure compatibility with the documented open space values. This method would enable the Town to preserve these areas in open space without direct acquisition. While it may be more beneficial to publicly acquire an entire site for open space, restricted and limited development may be a good alternative when acquisition funds are not immediately available and there are development pressures for the site. There is also the possibility of obtaining public easements through properties for trails or boat launching access.

It should be kept in mind that the priorities as listed in Table 2 assume acceptance and stringent enforcement of the regulatory approaches recommended in the earlier section.

LAND ACQUISITION RESOURCES

The availability of funds for acquisition of designated open space sites is conditioned upon a number of factors including the type of space, location

proposed use, and population to be served. Table 3 identifies the major sources of open space acquisition funds and the sites to which these funds might be applied. Briefly, those sites indicated in the previous section as being primarily of local concern (i.e., the degree of availability of other than local funds as a source for acquisition is low) will depend upon general obligation bonds, except in the redevelopment area where tax increment financing is possible and recommended. In contrast, other sites designated for acquisition have a variety of possible funding sources. A short description of these sources is provided below.

GENERAL FUNDS. The Town could appropriate monies from its general fund, via the annual Capital Improvement Program. This source may be suitable for small acquisition, but is generally considered inadequate when compared against the major cost of the proposed open space program. Moreover, dependence upon these funds necessitates an incremental acquisition approach which has two serious shortcomings. First, there is the danger that the desired site will no longer be available and second, even if it is available, there is the risk that the purchase price will have sharply increased during the interim.

GENERAL OBLIGATION BONDS. General obligation bonds will be a primary means of securing open space for Town purposes and are preferable over the use of general funds since they permit immediate acquisition and allocate the cost to present and future beneficiaries. The main disadvantage of general obligation bond financing is the requirement for two-thirds voter approval. Although in recent years several bond proposals for open space and conservation have been highly successful, the time required to pass such a proposal, as well as the uncertainty of passage, can result in problems similar to those incurred when using general funds. Specifically, these include the inability to prevent development of the desired site prior to purchase, or there have been acquisition cost increases due to appreciation in land values.

TAX INCREMENT FINANCING. The most practical approach to financing public improvements in some of the shoreline areas is tax increment bond financing. This alternative is available under provisions of the State Community Redevelopment Law, and can be applied only by a redevelopment agency to public improvements located in a redevelopment area and found to benefit development within the redevelopment area. The method is based on the principle that the cost of public improvements incurred for, and benefiting uses designated in, a redevelopment project should be financed by recapturing the increment in value of properties within the project area as a result of such public improvements. More specifically, in the Corte Madera Redevelopment Project Area No. 1 (a 446-acre area, primarily east of U.S. 101 and including the Muzzi and Hahn Properties), the Corte Madera Redevelopment Agency could pledge or allocate the tax revenues generated from the added assessed value within the Project Area to the

retiring bonds, loans and other obligations issued by the Agency for the purpose of financing project costs incurred in initiation and management of the Redevelopment Project. Among eligible project costs to be financed by this alternative are; land acquisition costs for purposes of park development for those portions of the proposed East Corte Madera Shoreline Park and Preserve within the redevelopment project area boundaries; park site improvements, including pedestrian and bicycle trails; and related administrative and planning costs. Ongoing operations and maintenance expenses are not eligible under this alternative.

This method of financing is most appropriate since among the main legislative purposes of the State Redevelopment Law is preservation of shoreline habitat areas and provisions of public access to the shoreline.

COUNTY FUNDS. County Funds for the acquisition of some open spaces may be available from the recently created Marin County Regional Park and Open Space District. Funds will be available for open space purchases throughout the county on the basis of priority. A list of criteria to determine this priority has been developed with such factors as the preservation of ridge tops, areas under development pressure, the degree of an area's visual or ecological importance and the desirability of local contributions being among the most important. Although many of the open spaces in the Corte Madera planning area qualify under these criteria, they must compete with other similar areas throughout the county. Furthermore, the district has stated that about 90 percent of their expenditures shall be used for open space acquisition and incidental costs which will, in effect, require the local jurisdiction to assume the responsibility for the open space maintenance. The district will only maintain and operate those areas where the local jurisdiction cannot provide for acceptable and uniform levels of maintenance.

REAL ESTATE TRANSFER TAX. A potential tax source available to the Town of Corte Madera is the real estate transfer tax. Presently, the County imposes a transfer tax on property transacted within the Town at a rate of 11¢ per \$100 of value of property transacted exclusive of mortgage of which one-half of the monies collected are returned to the Town.

STATE FISH AND GAME DEPARTMENT NATURAL HABITAT AND ECOLOGICAL PRESERVE MANAGEMENT PROGRAM. Natural habitat areas that do not meet requirements of national significance to qualify for federal acquisition and/or management, may be acquired by the State Department of Fish and Game, and managed by them. Where necessary, the State Department of Fish and Game also may contract with the Federal Bureau of Sport Fisheries and Wildlife to have the latter manage the natural habitat area. Funds for these activities come both from the operating budget of the State Department of Fish and Game and other applicable federal grants-in-aid, such as the Land and Water Conservation Fund.

CALIFORNIA PARK AND RECREATION BONDS. AB 392 (1972) enacted the State Beach, Park, Recreational, and Historical Facilities Bond Act of 1974, authorizes issuance of \$200 million in bonds to acquire and establish beaches, parks, recreational facilities and historical resources. Based on the passage of the 1964 Park and Recreation Bond Issues, this potential funding resource could have a significant effect on implementation of the park, open space and natural preserve elements in the Open Space and Conservation Element.

FEDERAL LAND AND WATER CONSERVATION FUND. This fund is administered by the Bureau of Outdoor Recreation of the U.S. Department of Interior, through the California Department of Parks and Recreation. Assistance is provided for acquisition and development projects approved by the state. Eligible development projects may include such varying projects as bicycle paths, hiking trails, roadside picnic stops and marinas.

Priority is given to projects serving urban populations for basic facilities, and for projects for which other Federal Financing is not available. Grants are made on a 50-50 matching basis, with the federal share based on allowable project costs. The projects so financed must be permanently dedicated to public outdoor recreation use, and the agency applying for the funds must assume responsibility for continuing operation and maintenance. About 40% of the appropriated funds under this program are retained by the Federal government for use by such federal agencies as the National Park Service, the Bureau of Outdoor Recreation, the Bureau of Sport Fisheries and Wildlife, and the National Forest Service. Acquisition and development of the railroad right-of-way for a lineal park and bicycle trail system may be applicable to this program.

FEDERAL WILDLIFE RESTORATION PROGRAM (PITTMAN-ROBERTSON PROGRAM.) This program, administered by the Bureau of Sport Fisheries and Wildlife, provides for assistance on a 50-50 matching basis to the State Fish and Game Department for restoring or managing wildlife populations and preservation and improvement of hunting and related uses. In recent years, application of this fund to preservation of wildlife not related to hunting species has been successful.

FEDERAL MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT OF 1972. As provided under this Act, the Secretary of Commerce may, after consultation with appropriate federal agencies based on specific proposed designation of areas for marine protection and sanctuaries, approve such proposals and appropriate funds for acquisition, development and operation of the designated marine sanctuaries. An amount not exceeding \$10 million has been authorized by Congress for each of the two fiscal years in which this Act will operate.

FEDERAL OPEN SPACE LAND PROGRAMS. This program is administered by the U.S. Department of Housing and Urban Development. Assistance is provided on a 50-50 matching basis to local public agencies to cover eligible costs incurred in a project that would: (1) provide, preserve, and develop open space land in urban areas; (2) acquire, improve and restore historic sites; and (3) develop and improve public urban lands for open space. Eligible development includes transportation and circulation facilities, landscaping and basic site improvements, including grading, planting, construction of retaining walls and fencing, installation of utilities, recreation facilities and equipment, including playground apparatus, game fields, fountains and equipment. While this program provides funds for which some of the proposed park and open spaces in the Open Space and Conservation Element are eligible, the prospect of securing assistance from this categorical program is not promising. Both the President and the Secretary of Housing and Urban Development have recommended that this program be terminated, probably at the end of this fiscal year or earlier, and be replaced as one component of the proposed Community Development (special) Revenue Sharing package.

SPECIAL ASSESSMENT DISTRICT. Where open space to be acquired overlaps several local jurisdictions and provides benefits to these jurisdictions consideration should be given to the creation and use of either a special district, or an assessment district, as a means of securing required acquisition funds. Under state laws, an assessment district could be established either by initiative act of the legislative body having jurisdiction over the proposed district, or through petition by property owners having property within the proposed district. Since the proposed district in this instance covers several local jurisdictions, namely, Corte Madera, Larkspur, and Mill Valley, "Legislative body" refers to the County Board of Supervisors.

A special open space district could be formed upon voter approval at a special election and with approval of the County Local Agency Formation Commission. The district has its own board, members of which are also elected by voters, and has the power to establish assessment and maintenance districts within its jurisdiction. In either case, funds are raised by levying an assessment on all property lying within the district boundaries. Assuming that the district covers all of Corte Madera, Larkspur and Mill Valley, an assessment of 1¢ to \$100 assessed value could raise approximately \$12,250 annually, based on total assessed valuation of all property, including public utilities, in the three cities in 1972-73. This fund could be used either independently for open space land acquisition, or to match county open space acquisition funds. The latter approach is recommended, as it must be recognized that while the adjoining cities would enjoy special recreation and scenic benefits from the open space lands in concern, the entire county would be benefited and served as well; an example of this area is the acquisition of the Northridge.

Another possible application is the acquisition of the railroad right-of-way in Corte Madera, Mill Valley and Larkspur, since the success of this proposed lineal trail and parkway depends upon the development of the availability of the right-of-way in all these cities.

East of U.S. 101, the Tiburon Ridge could be acquired through a similar approach recommended for the Northridge and railroad right-of-way, except in this instance the involved jurisdictions would include Corte Madera, Tiburon and Marin County. An alternative method could be a joint power agreement between the three jurisdictions.

TABLE 1
SUMMARY OF
OPEN SPACE VALUES AND DEVELOPMENT CONSTRAINTS
AND PRESERVATION METHODS

[illegible]

TABLE 2
PRIORITY OF OPEN SPACE SITES

SITE

FACTORS

Factor Scale:

4 Very High

3 High

2 Moderate

1 Low

Composite Rank

Habitat Value

Scenic Value

Regional Recreational Potential

Tiburon Ridge	11	3	4	4
Northridge	11	3	4	4
Upper Hidden Valley	10	2	4	4
Heerdts Marshlands	9	4	3	2
Muzzi Marshlands	9	4	3	2
Triangular Marsh	8	4	2	2
Site E of Triangular Marsh	8	4	3	1
Railroad ROW	7	1	2	4
Muzzi Filled Lands	6	1	2	3
Heerdts Filled Lands	6	1	2	3
Corte Madera Creek Site	6	2	2	2
Site West of All Faiths Church	5	1	3	1
Koch Site	4	1	1	2
Menke Park	4	1	2	1

TABLE 3
OPEN SPACE FUNDING SOURCES

SITE	FUNDING SOURCE											
	Special Assessment District	Town General Funds	Tax Increment Bonds	General Obligation Bonds	Real Estate Transfer Tax (Proposed)	County Open Space District Funds	California Natural Habitat and Ecological Preserve Program	California Park & Recreation Bonds	Federal Land & Water Conservation Funds	Federal Wildlife Restoration Funds	Federal Marine Protection Act Funds	Federal Open Space Land Program
Site E. of Triangular Marsh		☐		☒	☐							☐
Site West of All Faiths Church		☐		☒	☐							☐
Muzzi Filled Lands		☐	☒	☐	☐	☒	☐	☐	☐			☐
Heerdt Filled Lands				☒	☐	☒	☐	☐	☐			☐
Corte Madera Creek Site		☐		☒	☐							
Menke Park		☐		☒	☐				☐			
Koch Site		☐		☒	☐							☐
Tiburon Ridge	☒					☒			☐			☐
Northridge (including Tara Lara	☒			☐		☒			☐			☐
Railroad ROW	☐			☒	☐				☒			☐
Upper Hidden Valley	☒			☐		☒						
Muzzi Marshlands			☒	☐		☒	☐		☐	☐	☐	
Triangular Marsh				☒			☐			☐	☐	
Heerdt Marshlands				☐		☒	☐		☐	☐	☐	

● Major Sources
○ Alternative Sources

HOUSING ELEMENT

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HOUSING ELEMENT

PURPOSE

Corte Madera is primarily a residential community. The Housing Element is intended to promote and enhance the family-oriented, neighborhood life style of the Town. To achieve this end, the Housing Element supports four major aims:

1. To encourage a population which is diversified in terms of economic and social background, generally comparable to that of the county as a whole;
2. To encourage the maintenance of existing neighborhoods for family living, and to permit new housing in selected undeveloped areas to increase the supply of family type housing;
3. To preserve and enhance the small town character of Corte Madera, particularly in regard to the existing neighborhoods; and
4. To maintain a reasonable balance between public costs and revenues.

In order for the Town to achieve these four general aims, it is necessary to establish a series of generalized housing policies which further define and expand the Town's goals. Following these, a summary review of existing conditons is provided. This review, along with the general Town wide housing policies, form the framework for the establishment of more site-specific policy recommendations which will serve as a guide for future development.

TOWN-WIDE POLICIES

Inherent in some of the Town-wide policies listed below is the recognition that a number of housing and growth problems facing Corte Madera are really only a portion of larger problems facing Marin County as a whole. It shall be the policy of the Town of Corte Madera:

1. To promote small-scale, incremental increases in the Town's population which will permit a gradual integration of new residents into the community's social and political institutions;
2. To assist developers of low and moderate income housing by supporting private, non-profit housing sponsors and by investigating methods to reduce land costs to these developers;
3. To promote a diversity in the range of housing costs;
4. To increase housing opportunities by permitting additions to single-family homes or divisions of larger, older homes in selected areas where this action is desirable and appropriate; such additions or housing divisions would be subject to stringent conditions to insure the maintenance of the local environmental quality and livability of a neighborhood;
5. To encourage the use of available public assistance housing programs for the elderly and low and moderate income families and to locate such housing within convenient access to transportation, parks and other public services;
6. To encourage diversity and mix in housing types with essentially the same ratio as at present;
7. To maintain and improve the existing sound housing stock by initiating such programs as code enforcement and, concurrently, to promote tax incentives and rehabilitation loan programs to assist home owners in undertaking improvements;
8. To support methods to reduce the property taxes to lower income households, particularly those on fixed incomes without incurring additional burdens on the remainder of the Town's property owners;
9. To encourage compliance with State and Federal laws prohibiting discrimination in housing;
10. To prohibit or closely regulate residential development in areas where hazards to life and property exist;

11. To maintain development standards so that excessive maintenance costs will not accrue to the public within either the short or long-term future;
12. To maintain high standards of quality in the natural and man-made environment for all residential developments, and to maintain a sense of community identification by preserving the wooded character of the Town and the natural appearance of the surrounding hillsides and ridges;
13. To maintain the residential scale of the Town in existing neighborhoods and to promote such a scale through the control of building height, material, form and siting;
14. To allow supplemental residential units in commercial areas under conditional use provisions;
15. To involve citizens of the community in the development and implementation of housing policies and programs.

EXISTING CONDITIONS. Most of the critical housing issues facing Marin County are apparent in various degrees in Corte Madera. These include inflation and the sharp increase in the cost of resale homes, substantial rises in land and building costs for new homes, increases in the proportion of multi-family versus single-family residences and the recent decrease in new housing starts in southern and central Marin. The increase in home values has also resulted in higher taxes which are forcing many of the long-time, but less affluent residents to move to other locations in the Bay Area. The "Marin County-wide Plan" states that not only is Marin becoming a "super-rich county -- a one-class, more than affluent commuter colony", but that the housing presently constructed only reinforces this condition and that before long there will be very little available for families with incomes less than \$15,000. Moreover, due to the small number of industries providing jobs in Marin County in proportion to its population, private residences account for about 77 percent of the total property tax base. This has resulted in workers living considerable distances from their work which takes a great deal of commuting. In 1970, only 48.7 percent of the total Marin County workers were employed in the county; for Corte Madera residents, this figure was an even lower 35.8 percent.

POPULATION CHARACTERISTICS

Corte Madera, with a 1970 population of 9,082, is a homogeneous, primarily middle-income community with a median income of \$14,100 in 1970. Corte Madera closely resembles the county in almost all population and income characteristics. However, Marin County is unique in the Bay Area. As can be seen from Appendix Tables 1-2 and 1-3, the median income in 1970 in Marin County was \$13,935 which compares to \$11,802 for the San Francisco-Oakland SMSA which includes Marin, San Francisco, Alameda, Contra Costa and San Mateo Counties. Additionally, 97 percent of the Corte Madera population is white and 95 percent of the entire county population is white. This compares to 83 percent for all of the Bay Area counties.

HOUSING CHARACTERISTICS

Appendix Table H3 presents a compilation from the 1970 U.S. Census data of housing characteristics for Corte Madera, Marin County and the San Francisco-Oakland SMSA. Since these figures were recorded, inflation and demand for homes in Marin County has increased substantially and it can be assumed that all home value figures have increased proportionately, with values in Marin rising approximately 10 percent annually since that time.

Briefly, both Corte Madera and Marin County had a substantially higher percentage of single-family homes than the Bay Area as a whole: 75.5 percent for Corte Madera compared to 59.1 percent for the Bay Area. Likewise, more dwelling units were owner-occupied in Corte Madera than for the Bay Area: 63.7 percent compared to 49.6 percent. Even so, the number of rental units has increased markedly in Corte Madera over the past decade, with many single-family homes now being purchased for investment and rental purposes. In 1968, 14 percent of all Corte Madera single-family homes were rented. This trend can have an effect on some of the established family neighborhoods since building upkeep is often less important to renters than owners, and rental restrictions against families with children can cause a change in the socio-economic characteristics of an area.

Home values have increased substantially in Marin County and the Bay Area, even though the 1970 Marin median value of \$33,900 was \$7,000 higher than the median for the San Francisco-Oakland SMSA. To illustrate the rise in home values, in 1960 the median value in Marin County was \$23,100. The 1970 figure is a staggering 46.8 percent higher.

The substantial rise in home values and taxes, as well as the rise of the cost of living in general, has made it difficult for low and moderate income families and the elderly on fixed incomes to live comfortably in Marin County. There is relatively little family public housing in Marin, and what does exist is located mainly in Marin City, but units are small and the waiting list is long. This is further complicated by the current lack of adequate federal funds for housing.

Approximately 75 percent of all housing units in Corte Madera have been built since 1950. Of those built prior to 1950, 87.3 percent were located west of the freeway. Although only 13.9 percent of housing units were built between 1965 and 1970, 55 percent of the households in 1970 reported moving to their present residence during that period, and 35 percent located in the period from 1968 to 1970. This high turnover rate is indicative of the relatively high proportion of rental units as well as the increased mobility of the population in general. Even so, vacancies in both single-family homes and multiple dwellings were low, with the total vacancy rate reported to be only 1.1 percent in June 1969. Since a majority of the housing units in Corte Madera are relatively new, especially in the area east of the freeway, housing conditions are generally good. However, some of the older homes west of the freeway are in need of rehabilitation.

SPECIFIC HOUSING POLICIES

Specific housing policies are generally addressed to three situations:

1. Undeveloped land designated as suitable or desirable for residential use;
2. Residential neighborhoods whose existing environment and family housing stock should be protected and enhanced; and
3. Older residential areas where new small-scale development is to be encouraged both in filling and replacement housing.

Additionally, specific sites are singled out and discussed where there is the potential for implementing Housing Element policies.

UNDEVELOPED LANDS. Undeveloped lands in Corte Madera are divided into three categories:

1. Sites judged suitable and desirable for residential purposes;
2. Sites with special open space resource value which may be developed for limited residential uses in the event sufficient public funds are not available for acquisition;
3. Restricted or prohibited housing areas as shown on the Housing Policy Map. (Housing Development will be prohibited in the absence of acceptable engineering feasibility and geological engineering reports.)

The Town should direct future residential growth into the first category of lands prior to considering development of other sites that have natural resource values or that are restricted due to safety hazards. (See Seismic Safety and Open Space Conservation Elements.)

The Housing Policy Map, on file in the Community Services Department designates the sites included in these three categories and the accompanying Table H1 lists the sites, acreage and design considerations. The level of development will be controlled through the application of a Land Capacity Ordinance, the Open Space and Conservation Element and a more detailed review undertaken as a part of the Planned Development procedures.

PROTECTED NEIGHBORHOODS. A pattern of single-family detached, family oriented housing prevails throughout most of Corte Madera. This pattern has been reinforced, for the most part, by the provision of schools, parks and neighborhood-serving commercial areas. Moreover, most of the residential areas are free from heavy traffic movements since the major arterials are routed around, rather than through neighborhoods. These characteristics should be protected from the intrusion of incompatible new buildings and land uses, and any future vehicular circulation pattern should continue to reinforce neighborhood boundaries. Programs should be instituted to encourage individual home improvements and building upkeep in the older neighborhoods to maintain home values and to enhance the livability of these areas for families. The present increase in rental properties in single-family neighborhoods has led to the physical decline of some of the older homes and has resulted in a change in population characteristics. In 1970, the average number of persons per housing unit east of the freeway was 3.23; west of the freeway the average was 2.82, indicating fewer numbers of families living in the older parts of Town. This is further documented by age characteristics which show that 31 percent of all residents living east of the freeway are under 14 years of age and only 25.7 percent of residents living west of the freeway fall into this category.

TABLE H1: POTENTIAL HOUSING SITES

Site	Acreage	Major Reasons or Special Design Considerations
MADERA DEL PRESIDIO (Main Site)	67.5	Road graded and other site preparations completed; unattractive in present condition and would be difficult to acquire for open space since other sites are more critical for preservation. Water pressure limitations; development uncertain until problems can be adequately corrected. Significant open spaces are to be preserved by developer.
UNINCORPORATED SITE ON TAMAL VISTA BLVD.	7.8	Level Site backing up to single family neighborhood on two sides; potential for additional housing stock, however, considerable thought should be given to the proximity to the adjoining single family neighborhood and the frontage on arterial street.
SITE ADJACENT TO ALL FAITHS CHURCH	8.7	This is an important recreational site. Consideration should be given to development of a neighborhood park at the time of any residential development.
UPLANDS II	15.2	Second Stage of development; lower portions of site do not have significant open space value; Land Capacity Ordinance to be applied; seismic safety element considerations.

TABLE H1: POTENTIAL HOUSING SITES

Site	Acreage	Major Reasons or Special Design Considerations
QUARRY	20.5	Because of the steepness of the sides of the Quarry, it is probably impractical to build above 190 foot elevation. This leaves 5.85 acres which appear feasible for construction, with the remainder open and with trails to the ridge.
KOCH PROPERTY (NORTHERLY PORTION)	28.5	Presently recommended for light industrial development in the Community Services and Commercial Facilities section, since noise studies have not been conducted to determine the compatibility of residential development with existing and anticipated noise levels from the freeway. If compatible, this site offers an excellent opportunity to provide moderate-income housing with good roadway access (Madera del Presidio access road) and would be located adjacent to the Madera del Presidio housing. As a concomitant to development approximately five acres should be devoted to as park space for field sports as recommended in the Open Space and Conservation Element.
KOCH PROPERTY (SOUTHERLY PORTION)	22.5	This site has been recommended for a low density residential use. Development permitted through the Planned Development District if the concerns pointed out in both the Open Space & Conservation and Seismic Safety Elements are recognized and dealt with. Design standards and Land Capacity Ordinance to be strictly enforced.

TABLE H1: POTENTIAL HOUSING SITES

Site	Acreage	Major Reasons or Special Design Considerations
ACCEPTABLE ONLY IF PUBLIC OPEN SPACE FUNDS ARE NOT SECURED		
NICHELINI PROPERTY	58	Important Northridge open space lands should be totally preserved if legally and economically feasible. Development permitted if open space dedication through planned unit development is the only feasible acquisition approach. Design standards and Land Capacity Ordinance to be strictly enforced; Seismic Safety Element points out several concerns that should be dealt with.
TIBURON PENINSULA RIDGE	546	Only a small portion of the acreage under the Ring Mountain Plan is considered to be developable some of which should be preserved for scenic and historical as well as other unique botanical reasons. Similar to the Nichelini Property, this entire area has been recommended for total preservation in open space, if legally and economically feasible, and should not be developed unless open space dedication and regulation is the only method available to the Town to assure preservation of lands with open space value. Road access and water pressure limitations will impose further restrictions on development. Design standards and Land Capacity Ordinance should be strictly enforced; Seismic Safety Element brings out several concerns that should be dealt with.

SUPPLEMENTAL RESIDENTIAL DISTRICTS. In individual cases, it may be feasible to increase the number of housing units without substantially altering neighborhood characteristics. This is possible through the addition of second units to existing homes as well as permitting the division of some larger homes to permit occupancy by more than one household. Another source of supplemental housing which does not substantially alter neighborhood characteristics is possible with the addition of some housing units in developed non-residential areas.

It is intended that the Town's Zoning Ordinance be changed to allow these supplemental units by the conditional use method.

This new conditional use would be particularly beneficial to some elderly residents in providing extra, needed income for taxes, property maintenance or other purposes. In addition, units can be rented by the elderly at lower cost than most new apartments or at no cost by family members of those owning the property.

By promoting a diversity in housing types, these second units will also benefit single people and students on lower income. Dwellings in developed non-residential areas have a particular advantage of being convenient to stores and transportation.

HOUSING RESOURCE SITES. The Potential Housing Sites listed in Table H-1 have individual special design characteristics which should be evaluated to achieve Town-wide Housing Policies.

RECOMMENDED IMPLEMENTING APPROACHES

The Housing Element calls for the development of 5 vacant parcels in the Town's planning area to provide a diversity in the type and costs of housing. There are also two other sites - the Nichelini Property and Tiburon Peninsula Ridge which could be developed for housing if acquisition of the significant open space resources of these sites cannot be permanently obtained through means other than planned development and regulation. Other proposals call for protecting established neighborhoods and allowing supplemental housing units in selected areas on a conditional use permit basis throughout the Town. The following is a description of the various regulatory methods and financing techniques the Town of Corte Madera can employ to fulfill these specific policies and, in turn, achieve the Town-wide housing policies.

DEVELOPMENT LIMITATION. The Marin County-Wide Plan projects an approximately 50% increase in the population of Corte Madera over the next 25 years. This Plan does not endorse this concept, but it may serve as a planning guideline for establishing a ceiling.

It should be the policy of the Town to regulate growth so that development takes place at an even rate which will enable Town services to be planned to accommodate projected population increases.

This is extremely important in a small community such as Corte Madera, as an unregulated increase in population could seriously disrupt the Town's capacity to serve the needs of both the new and existing residents, the Town's physical scale, social patterns and political institutions. Too rapid development would strain Town services. Inasmuch as many of the provisions of the Corte Madera General Plan are directed to alleviating problems created by the rapid population increase east of the freeway in the past decade, it is of critical importance that the Town avoid such problems in the future. Water, sewer and other problems presently exist as outlined in the Community Services Element of the General Plan. The problems will be best dealt with in a framework of controlled development.

PLANNED DEVELOPMENT DISTRICTS. All major undeveloped residential sites within the Town's corporate boundaries are to be rezoned as Planned Development District overlaying existing zoning of: R-1-5, R-1-A, R-1, R-2, etc. The latter determines the land use and the former will provide the necessary design and open space standards to be applied. Final project design and site plan will be subject to Town review. This should be done only after all recommendations in this General Plan for changes in land use are considered. For example, several areas should be designated for potential open space, as proposed in the Open Space and Conservation Element rather than for residential use. Some of the design provisions to be considered in the Planned Development District should include:

---Conformity of the overall site plan with provisions of the Seismic Safety Element in prohibiting development in specific hazard areas;

---The extent to which scenic attributes, natural habitats and recreational resources are preserved in their natural state and blend with each other, surrounding development and the natural environment.

---Siting of structures, building materials employed, and degree to which buildings blend with the natural environment;

---Extent of the project's visibility from surrounding public areas and roadways;

---Open Space dedication, if any, and the quality of the open space dedicated;

---Provision and design of adequate recreational facilities and private open space areas to serve the project's population;

- Conformity with Town or county-wide recreational plans, i.e., trail provisions for pedestrians and bicyclists where called for;
- Landscape design and buffering techniques;
- Maintenance of appropriate building scale and height;
- Grading and its effect on run-off and erosion as well as alterations to significant land forms;
- Road access and percentage of land coverage;
- Degree of separation and safety of pedestrians and bicyclists from automobiles;
- Design and adequacy of parking facilities;
- Building location in respect to transit facilities;
- Diversity in the range of home prices, housing types and provisions of homes for low and moderate-income groups;
- Continuation of present ratio of single family to multiple units and a mix of housing types in the residential area.

LAND CAPACITY ORDINANCE. A Land Capacity Ordinance should be enacted by the Town. This ordinance will serve as the guide to determine the actual development capacity of a site by considering the restrictions imposed on development by such factors as topography, geology, road access, significant open space values desirable to be preserved, etc. The maximum developable housing units are reflected in existing zoning in some instances; further site investigations by the developer and application of the Land Capacity Ordinance may substantially reduce the number of allowable units on a given site. A full description of this proposed ordinance can be found in the Open Space and Conservation Element.

LOW AND MODERATE INCOME HOUSING INCENTIVES. The Marin County Planning Department defines "Moderate" income as ranging from about \$8,000 to \$15,000 annually. However, for families earning less than \$12,000., there are few opportunities to purchase housing and the availability of homes for those in the \$12,000 to \$15,000 range is also become scarce.

It is one goal of the General Plan to provide housing for people of low and moderate income. A provision of some housing for people of low and moderate income must be considered when new housing developments are approved. Certain options or incentives can be granted by the Town to assist developers in meeting these goals. These may include but shall not be limited to the following:

1. Use of Federal program funds, State program funds, as available;
2. Density bonus;
3. Fee waiver and siting adjustments;
4. Use of "banked land" from a Countywide land-banking system.

Proposed Developments may be eligible for a density bonus of 10% to 15% if the proponents of the development are able to provide clear and specific guarantees that such housing will fulfill the needs of families in the above described category.

The following conditions satisfactory to the Town of Corte Madera are to be fulfilled as a condition of approval of any project incorporating low or moderate-income housing.

1. Guarantees clearly detailed are to be recorded insuring that all low and moderate income housing permitted will be used solely for housing low and moderate income groups at rents or purchase rates meeting humane standards in relationship to their total income;
2. These density bonus increases will not occur in established neighborhoods and are not to affect present neighborhood living conditions in Corte Madera;
3. The range of increase is one that can be absorbed into a proposed development without negatively affecting the character of development since a higher density could result in greater height and bulk and considerable less open space.

SUPPLEMENTAL RESIDENTIAL PROVISIONS. Supplemental Housing Units are intended primarily for people of low and moderate income.

A new conditional use procedure to permit the addition of a second unit either as a free-standing structure, an addition or a division of an existing residential structure should be created. This procedure can then be applied within existing zoning classifications, modifying the underlying zoning district provisions.

Second units would be conditionally permitted and subject to standards and criteria set forth by ordinance. Any exceptions will be governed by the Town's variance procedures. These criteria and standards shall include but not be limited to the following:

1. The second unit must have sufficient lot size and site proportions to permit compliance with the minimum setback and building spacing requirements of the underlying zoning district in which it is located;
2. The second unit must maintain the scale of adjoining residences and blend into the existing setting by use of appropriate building form, height, materials, color and landscaping appropriate with that setting;

3. The Town may require that the second unit be provided with off-street parking;
4. The second unit must not downgrade the livability of the existing structure or site;
5. The second unit should have its own separate entrance and must contain its own separate kitchen and bathroom facilities.

A new conditional use procedure to permit the addition of dwelling units in developed areas which are now non-residential should be created. This procedure can then be applied within existing zoning classifications, modifying the underlying zoning district provisions.

These units would be conditionally permitted and subject to standards and criteria set forth by ordinance. Any exceptions will be governed by the Town's variance procedure. These criteria and standards shall include but not be limited to the following:

1. The unit must have sufficient lot size and site proportions to permit compliance with the minimum setback and building spacing requirements of the underlying zoning district in which it is located;
2. The unit must blend into the existing setting by use of appropriate building form, height, material, color and landscaping appropriate with that setting;
3. The Town may require that the unit be provided with off-street parking;
4. The unit must not downgrade the livability of the existing structure or site;
5. The unit should have its own separate entrance and must contain its own separate kitchen and bathroom facilities.

PUBLIC AID TO NON-PROFIT HOUSING SPONSORS. Federal, State and County legislation should be encouraged to provide low-interest loans to the developers of planned unit developments for low and moderate income housing units. The Ecumenical Association for Housing or some similar organization could greatly benefit from this legislation.

REHABILITATION PROGRAMS. Programs to aid in the rehabilitation and continued maintenance of some of the existing neighborhoods should be instituted.

Most Federal and State programs are for use in particular concentrated areas selected for rehabilitation, rather than for city-wide application. When applied city-wide, the program is known as systematic code enforcement. Due

to the relatively small size of Corte Madera and the fact that there is no one area with many structures in poor condition, it is likely that a concentrated code enforcement program can be applied throughout the Town.

Code enforcement programs must be coupled with financial assistance to make it feasible for owners with limited incomes to rehabilitate their property. In some cases, it may be necessary for the Town to excuse some homeowners from making necessary repairs so long as present conditions do not pose a threat to health and/or safety. These people are often given "life moratoriums" for work that should be done but which do not pose an immediate hazard. When the person leaves the unit or dies, the repairs must be completed.

Code enforcement areas may also be eligible for funds to carry out public actions such as landscaping and other street improvements to enable overall neighborhood revitalization. Restoring a sense of community and a spirit of confidence is an essential part of neighborhood revitalization that cannot be done exclusively through home repair. In addition to the enhancement of the character and charm of the neighborhood, code enforcement programs aid in the preservation of the older housing stock for lower-income families. Even after rehabilitation, many of these older homes in Corte Madera will sell for less than most new homes constructed in Marin County.

Of the 820 housing units built in Corte Madera prior to 1950, 87.3 percent (716 units) are located west of the freeway. This equals nearly 30 percent of the total housing stock in that part of the Town. Further, nearly 20 percent of all the homes in the western portion are at least 34 years old and may benefit from a low-interest, rehabilitation loan program. The program should be a continuous one since there will be only small increases in the new housing stock in Corte Madera and older structures must be maintained if large scale renewal is to be avoided. Moreover, as the homes built since 1950 continue to age, they will need some rehabilitation.

Homes eligible for financial assistance in this program would be determined only after careful site inspection. Some of the characteristics of areas or properties to be eligible under code enforcement programs include:

1. Housing where structural conditions are such that rehabilitation would be desirable from the standpoint of health and safety;
2. Housing where the degree of rehabilitation is not so extensive as to be economically unfeasible; some homes may be in such poor physical condition that renewal rather than rehabilitation would be warranted;
3. Instances in which the financial status of the homeowner would not permit rehabilitation without the aid of low interest loans;
4. In areas where neighborhood improvements such as landscaping and the undergrounding of utilities would substantially improve the quality of the neighborhood and enhance other investments made for code repairs.

Since funds for most code enforcement programs are limited, the Town must rate the areas or homes to receive assistance as to the priority of need. Similarly, the Town should investigate the availability of other public programs which can be used for public street improvements in conjunction with the code enforce-

ment programs. If other funding sources are available for this purpose, the code enforcement funds could be applied over a wider area for home improvements. It should be noted that while the primary intent of the rehabilitation programs available is to provide funds for homeowners money will also be available to landlords owning rented property that meet the program criteria and are in need of rehabilitation. Upgrading of rented property to code standards should not be an excuse to raise rents to tenants, and safeguards will be taken to avoid such actions.

TAX RELIEF LEGISLATION. Increases in taxes due to inflation and home improvements force many elderly and lower income families to leave their homes. This issue is not restricted to Marin County and Corte Madera, is unfortunately, not in a position to provide a solution to the problem. However, the Town should actively support appropriate tax relief legislation aimed at lessening this problem, particularly in regard to deductions for the elderly and for homeowners making improvements under a code enforcement program.

DISCRIMINATION. There are many state and federal laws prohibiting discrimination in housing. However, enforcement of these laws is left mainly to the victim who must file a complaint with the appropriate public agency and who must have adequate proof to support his allegations. More active enforcement should be instituted through the county agencies, including periodic checks on landlords.

Another discrimination problem which is becoming prevalent in Marin County is the denial of housing to families with children. Aside from the relative absence of larger apartments to house families with children in most new apartment complexes, it is common for landlords to deny rental to these families and to raise rents or refuse lease if a child is born during tenancy. The Human Rights Commission attempts to handle grievances between landlord and tenant, but stronger laws must be adopted on the State level to prevent discrimination against families with children. These laws must be backed up with effective enforcement techniques by the county.

Landlords often cite the reason for denial as being the lack of appropriate on-site facilities for children and this is, in many cases, valid. The Town to provide more family-type living accommodations, should require developers to provide play equipment and facilities for children and assure that a certain percentage of the housing units be set aside for families.

CITIZENS ADVISORY COMMITTEE

A citizens Advisory Committee on Housing should be appointed and entrusted with the following responsibilities:

1. To annually review implementation of the Housing Element;
2. To recommend changes in implementation procedures;
3. To recommend amendments or additions to housing goals;
4. To recommend new ways to achieve housing goals;
5. To act as a repository for information on implementation of housing goals;
6. To act as liaison between Corte Madera citizens and the Town Council and Planning Commission on housing issues;
7. To prepare an annual report to the Town Council and Planning Commission on the committee's work, the first report being one year from the adoption of the Housing Element.

**COMMUNITY
SERVICES
AND COMMERCIAL
FACILITIES**

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COMMUNITY SERVICES AND COMMERCIAL FACILITIES

PURPOSE

Although not a state-mandated element, the Community Services Commercial Facilities section is an essential part of the Corte Madera General Plan. Its major purpose is two-fold: first, to provide recommendations that will assure an adequate and equal level of public services and facilities for all Town residents and second, to prescribe the type and location of goods, private services and employment opportunities that should be available to residents.

Although commercial development is considered to be the responsibility of the private sector and community services to be the responsibility of the public sector, the two overlap considerably. For example, while the provision of retail goods and services is considered as private development, it is also a necessary community service since residents must be able to purchase neighborhood-type goods and services within a short distance from their homes. The other component of commercial development-office and industry - is also considered since it should not be separated from the retail function in terms of its location in the Town and its compatibility with residential development. As well, office and industry provide employment opportunities in the community. The aspect of providing work close to home in order to reduce commuting time and cost is rapidly becoming a major community service. The major concern, however, must be that the location of such employment does not have a significant adverse impact on the livability of neighborhoods and as well, must be consistent with the Town's environmental quality aims.

This section is closely allied with the Land Use Element and, as such supports the following three major aims:

1. To preserve and enhance the small-town scale and character of Corte Madera in both the regional and local setting.
2. To provide public and private community-related services that are adequate and accessible.
3. To maintain a reasonable balance between public cost and revenues.

TOWN-WIDE POLICIES

A series of Town-wide policies has been formulated to attain the three general aims cited above. Following these policies is a review of the extent and condition of the existing public and private services and facilities in Corte Madera, and a series of specific policies and recommendations for the expansion and/or improvement of these services. It shall be the policy of the Town of Corte Madera:

1. To provide a full range of community-related services within the Town boundaries.
2. To expand the local employment opportunities by encouraging an increase in facilities which will promote a more diversified tax base and will reduce the amount of time and distance spent in commuting. The location of these facilities should be compatible with other land uses and consistent with the Town's environmental quality aims.
3. To promote a greater efficiency in the provision of Town services and to maintain equal levels of public services in all portions of Corte Madera.
4. To improve the accessibility and use of existing Town-wide public services and facilities.
5. To encourage reorganization, where necessary, of public service district boundaries so as to improve access and use.
6. To promote a high level of police and fire protection.
7. To coordinate development and the expansion of public services and to maintain high development standards to ensure that excessive maintenance costs do not accrue to the public within either the short-or long-term future.
8. To promote a greater sense of community between east and west Corte Madera.
9. To improve the communication and level of information between the Town and its residents.
10. To encourage citizen participation in the processes of Town government.
11. To require all new developments to provide underground utilities, to continue the scheduled undergrounding of existing utilities as it becomes financially and technically feasible, and to actively work with public utilities for the reduction of visual impact of existing and/or proposed utilities.

EXISTING CONDITIONS

COMMUNITY SERVICES

Although some public services are currently adequate, future development in Corte Madera will strain these services. However, the major problem in regard to public community services results from U.S. 101 which splits the Town in two and constitutes a physical barrier. As of April 1970, 73 percent of the Town's residents live west of the freeway and the remainder live in the more recently developed east portion. However, proposed residential projects would substantially increase the population in the east. Unfortunately, community services have not kept pace with the rapid rise in population. Almost all community services and facilities (Town Park, Library, Recreation Center, Town Hall, Police Department and junior and senior high schools) are located or headquartered west of the freeway. Present access between east and west Corte Madera is confined either to the Tamalpais Drive freeway interchange which has no provisions for pedestrian movements, or to a narrow and isolated underpass adjoining the City of Larkspur. No freeway crossing provisions have been made for pedestrians or bicyclists. Inequities in services in the two portions of the Town have become a major concern of the community. Other major public service issues facing the Town are summarized below.

PUBLIC SCHOOLS. Students in Corte Madera are now attending public schools in four separate school districts: The Larkspur-Corte Madera and Reed School Districts for kindergarten through eighth grade; Tamalpais Union High School District; and the Marin Community College District which operates the College of Marin in Kentfield. The Larkspur-Corte Madera School District is responsible for most of Corte Madera's elementary school students and they attend the Larkspur-Corte Madera Elementary School in Larkspur, the Neil Cummins School adjacent to the Town Park, Henry C. Hall School on Doherty Drive in Larkspur, and the San Clemente School located on the north side of Paradise Drive, west of Golden Hind Passage. Since San Clemente School and Larkspur-Corte Madera School are for kindergarten through sixth grade, students must attend either Neil Cummins School, Corte Madera, or Henry C. Hall School, Larkspur, for grades seven and eight. The Reed School District serves the southern half of the Marin Estates subdivision and the area east of Marin Estates south of Paradise Drive bounded by Sonora Way and the ridge. This district operates the Granada School in Corte Madera south of Paradise Drive, but since it is only for students through the fifth grade, grades six through eight are taught at the Reedland Woods School located on the southern side of the ridge in Tiburon.

All public high school students attend Redwood High School in Larkspur, just north of the Corte Madera boundary. This school is operating to capacity (about 2,600 students) and, in an attempt to alleviate overcrowding, has recently instituted new scheduling techniques to more efficiently utilize school facilities and staff.

If the Madera del Presidio area is developed, students will be in the Mill Valley School District, the third elementary school district to serve Corte Madera. However, the closest school in this district is the Strawberry School near Richardson Bay which would require busing.

The current delineation of elementary school boundaries in Corte Madera has resulted in excessive busing of children and has prevented neighborhood identification with the schools since the districts bear little resemblance to the boundaries of established neighborhoods or the Town.

RECREATION. The only significant open and level park land in Corte Madera developed for general recreational purposes is the 26.9 acre Town Park on Tamalpais Drive west of the freeway. This park is intended to serve the entire Town Population of over 9,000 persons (about 2 acres/1,000 persons). However, the park is too small to serve all residents and is inconveniently located for the 27 percent (2,450 persons) of the population who live east of U.S. 101. Those residents rely on small recreation areas associated with the San Clemente and Granada Schools, on Skunk-Hollow Park, and on one other mini-park and municipal tennis courts east of the freeway. Other small parks in Mill Valley, Larkspur and Tiburon can be used by Town residents, but these generally require an automobile for access.

The Recreation Center, built by the Corte Madera Lions Club and donated to the Town, is presently operated by the Lions Club under terms of a lease due to expire in 1976.

Park and recreation programs are administered through the Town's Recreation Department which conducts activities and classes in the Town Park, the Recreation Center adjacent to the Town Park, and in the All Faiths Church on Paradise Drive. Since the Recreation Department must pay a share of its running expenses, a 50 percent indirect overhead cost is included in the recreation fees charged to participants in programs. An increase in costs must be compensated by an increase in fees, thus a decrease in resident participation in the programs occurred during the 1972-73 year. The department also has a policy to cancel classes that do not have sufficient sign-ups to cover costs. Moreover, publicity is limited and many residents are not informed of available programs since recreation program information is distributed mainly through the elementary schools, library, several pharmacies, and churches. No distribution is permitted by Redwood High School and a large portion of the teenage population is unaware of the extent of available opportunities. The enrollment in programs during the 1973-74 season was about 26,600 and the summer playground program had participation of about 35,650. The City of Larkspur presently participates in the summer program.

POLICE PROTECTION. Police services are provided by the Corte Madera Police Department located adjacent to the Town Park. The department presently has a force of 14 sworn officers (1.45 sworn officers per thousand population) and residential burglaries and shoplifting are considered to be among the department's greatest problem.

Areas of greatest activity are: preventive patrols; emergency and service calls; apprehension of law violators; juvenile matters; traffic enforcement and administrative matters. The preventive patrol program is an effort to reduce daytime burglaries.

In addition to the police protection afforded by the Corte Madera Police Department, the California Highway Patrol maintains a field office northeast of the Tamalpais Drive freeway interchange. The Zone III commander has indicated that the present facility is undersize for present personnel and work load. The patrol is not responsible for property protection, but their presence in Corte Madera has beneficial effects on traffic safety. Additionally, there is an existing mutual aid agreement with the Marin County Sheriff's Office.

FIRE PROTECTION. Fire protection is provided by the Corte Madera Fire Department which has a full-time staff of 11, including the Chief and his assistant. In addition, there are 6 daytime volunteers from the Corte Madera Public Works Department and an additional 15 volunteers in the Town. The department maintains two fire stations, with the main station adjacent to the Town Hall where at least three men are on duty at all times. There is a satellite station at 5600 Paradise Drive operated on a volunteer basis. and is only manned part-time. Total fire fighting equipment includes seven vehicles with a combined pumping capacity of 2,500 gallons per minute, augmented by two high pressure units. The sub-station on Paradise Drive has one high pressure truck and one pumper.

WATER SUPPLY. Corte Madera is served by the Marin Municipal Water District (MMWD) which has an existing storage capacity of 52,010 acre-feet in their five reservoir lakes in central Marin County. The District has no outside water sources. In 1970 they served an estimated population of 170,000 with 50,308 service connections. Based upon an analysis of past rainfall and watershed yields, the reservoirs have an annual "net-safe yield" of 26,000 acre-feet. However, the district has adopted a policy to risk a water shortage once in every 30 years, yielding a planned purpose water supply of 33,000 acre-feet per year. While gross per capita water consumption has been reduced since 1970, increases in population are once again increasing water demand. Total water demand from MMWD in 1972 was 31,400 acre-feet, an excess of more than 5,000 acre-feet over the net safe yield. With demand now threatening the planning purpose supply, the district's Board of Directors has imposed a water pipe extension ban to all new developments until the gap between the net safe yield and the actual present supply can be closed. An intertie with the North Marin Water District would permit

an increase in supply of approximately 4,000 acre-feet per year. This, however, is only feasible if the North Marin Water District's proposed facilities for importing additional water from the Russian River is approved by North County voters. Until such time, the North Marin Water District will itself continue to experience a water shortage. There are certain residential areas within the Town which have insufficient water pressure.

SANITARY SEWERS. Corte Madera is served by the County Sanitary District No. 2 which collects and transfer liquid wastes to the County Sanitary District No. 1 sewage treatment facility on the San Quentin Peninsula for treatment and disposal. District No. 1 performs these treatment and disposal operations under a contract which allows for a maximum daily flow of 1,175,000 gallons per day (1.175 MGD). District No. 2 is approaching capacity and will be required to negotiate a new contract when they exceed the contracted flow. The existing treatment facilities of District No. 1 provide secondary treatment, with 85 percent removal of biological oxygen demand (BOD) and suspended solids. Total capacity is approximately 4.5 MGD, while the average current flow is about 4.2 MGD.

District No. 1 is currently under a cease-and-desist order issued by the Regional Water Quality Control Board. Removal of this order will require that the district eliminates bypassing of treatment facilities during high rainfall periods, when flows become excessive due to infiltration. Additional connections to District No. 1 lines may be made as the facilities are improved or infiltration reduced. District No. 1 anticipates that their treatment facility will be consolidated with that of San Rafael. Treatment would be secondary, with 90 percent removal of BOD and suspended solids through filtration.

The cease and desist order does not apply directly to District No. 2, thus, there is no limit on new connections except as imposed by the current contract. However, District No. 2 is also experiencing infiltration problems in their sewers. This is the leaking of ground water into the system, which increases the flow and decreases the excess capacity available under the contract. The district is currently studying the problem areas of their system and is attempting to eliminate this infiltration and correction of this problem could lead to increases in present sewer capacity. The District has embarked upon an extensive rehabilitation program.

STORM DRAINAGE. A comprehensive drainage plan has been in effect in Corte Madera since 1956, but during the last few years drainage problems have become severe. Flooding problems associated with heavy rainfalls can be corrected through improvements in the storm drainage system and, once improved, flooding will no longer be a serious deterrent to development.

Flooding can result from either of two phenomenon. The first, storm runoff originating within Corte Madera, floods lowlands because of an inadequate drainage network that does not transport water into San Francisco

Bay. The second cause, high tides in the Bay, force water up into stream channels and inundate all un-leveed lands below the tide level. The elevation of the water surface in the Bay depends on tide, local run-off, and wind and wave effects. The floods on and around U.S. 101 during January 1973 were caused by a combination of both tide and inadequate drainage, an extremely rare occurrence.

Since the drainage plan took effect, increased housing construction has covered more land with impervious surfaces. The result is greater run-off of storm water and reduced usefulness of water detention areas. The lower portions of the Town can experience flood damage, but the hillsides that contribute to the additional run-off escape flooding. Flooding has been further complicated by the fact that in some reclaimed tidal lands the clay materials in the Bay Mud are so unstable that land subsidence takes place over periods as long as 100 years. Therefore, certain areas in Corte Madera have subsided to elevations that cannot now be drained with the existing storm drainage system. Natural ponding areas were once commonplace in the tidal lands of Corte Madera, but the gradual filling of these lands prevents storm waters from draining to these areas. Instead, the waters must proceed down channels into the Bay or to other lowlands where ponding can occur. This has resulted in a further flooding complication.

Frequent storm drainage and acute flooding problems in recent years have reached serious proportions in certain areas in Corte Madera including Madera Gardens, Marina Village and tidal flats east of the freeway. While other sections within the Town also experience recurring floods, the most affected areas are those built on tidal flats equal to almost one-half of the Town's total area.

ENERGY AND COMMUNICATIONS. Electricity and gas service is provided by Pacific Gas and Electric, and communication service is provided by Pacific Telephone. Pacific Telephone operates under a State wide franchise based on Section 901 of the Public Utilities Code. This franchise allows telephone companies to place their facilities in streets and highways without compensation to the individual cities and counties.

Ordinance No. 289 (Gas) and Ordinance No. 290 (Electric) adopted August 5, 1957 granted the P.G. & E. franchise rights to operate gas and electric facilities in the Town of Corte Madera. This franchise is indeterminate as stated in Section 4, page 2 of these ordinances.

CABLE TELEVISION. Corte Madera is now served by Tele-Vue Systems of Marin, Inc. which operates through a franchise agreement with the Town. Of the approximately 3,200 dwelling units in Corte Madera, 2,700 subscribe to this service.

Cable television is regulated by the Federal Communications Commission (FCC) which recognizes the potential of cable TV for use by public agencies including police and fire departments. Comprehensive public agency use in more populated areas such as Marin County would require television sets with a 20-station capability. Installations in Corte Madera are not up to this standard.

SOLID WASTE DISPOSAL AND REFUSE COLLECTION. Solid waste from Corte Madera is collected by the Mill Valley Refuse Service for disposal at the West Contra Costa County Dump which has an estimated life of 40 years at current rates of disposal. The original ten-year contract expired March 31, 1975, with a fifteen-year renewal option, which calls for garbage pickups once a week and trash pickups three times a year. The company charges three separate rates: (1) level areas; (2) hill areas; and (3) the Christmas Tree Hill area.

COMMERCIAL FACILITIES

RETAIL. The major portion of Corte Madera's retail facilities are found in the Corte Madera Shopping Center, located west of U.S. 101 and north of Tamalpais Drive. The center was constructed in the late 1950's and has a total floor area of approximately 250,000 square feet. Major tenants include J.C. Penney, Montgomery Ward and Woolworth's, plus banks and other small stores, a supermarket and a food-service facility.

A smaller, neighborhood-type facility is the Paradise Drive Shopping Center, located on the south side of Paradise Drive directly east of the railroad right-of-way. The center contains a supermarket, drug store, food-service facilities and several other neighborhood-oriented retail establishments.

West of the freeway in the original central business district, Village Square, are a number of other local neighborhood retail outlets, primarily on Tamalpais Drive and Corte Madera Avenue. The stores are situated east and west of the railroad tracks.

The Co-Op Shopping Center is located at 71 Tamal Vista Boulevard and offers a variety of retail services.

Park Madera Shopping Center is on the north side of Tamalpais Drive in the 400 block.

A few neighborhood-type service facilities, including gasoline stations and real estate offices, are located along Tamalpais Drive between the freeway and the Recreation Center at the Town Park. Along the freeway frontage roads are several automobile sales and service centers.

An additional retail-office/administrative area is developing in the vicinity of Fifer Avenue and Nellen.

OFFICE/ADMINISTRATIVE. A small percentage of the land in Corte Madera is devoted to office and administrative uses; the primary concentration in Marin County is located in and around San Rafael. However, in the Town itself are offices for the California Department of Motor Vehicles, Marin County Superintendent of Schools, the Marin Municipal Water District and the Park Marin Office Center. These are located west of the freeway along Tamal Vista Boulevard. The California State Highway Patrol is located northeast of the Tamalpais Drive freeway interchange. Scattered, small office functions can also be found within the various retail areas.

INDUSTRY/WAREHOUSING. Most industry and warehousing is located west of the freeway near Tamal Vista Boulevard and the major facilities include the Montgomery Ward warehouse and the Handi-Kup Company. Tamal Plaza, a new office and warehouse project containing approximately 7 acres and 108,000 square feet of space will be built on the west side of Tamal Vista Boulevard. Another industrial area is owned by H. Koch & Sons, a site of approximately 31 acres east of the freeway and south of Tamalpais Drive, but at present 28.5 acres remain undeveloped. Several new businesses have located in the area bounded by Tamalpais, San Clemente and Paradise Drive.

SPECIFIC POLICY RECOMMENDATIONS

Specific policy recommendations for the improvement of the Town's public services and non-residential development have been formulated to provide for optimum service, accessibility and use. The location of the existing and proposed services and facilities are shown in the Community Services and Commercial Facilities Map, Figure CS1.

The following discussion has been divided into two parts. The first, Community Services, presents policy recommendations for the public services that are the responsibility of the Town, whereas the second, Commercial Facilities, deals mainly with the privately funded improvement of the retail and office/industrial service districts.

COMMUNITY SERVICES

Many of the Town's public services are the responsibility of both the Town and the County of Marin, and improvement in the delivery of these services will require increased cooperation between the two jurisdictions.

PUBLIC SCHOOLS. The Town should support efforts to see that school boundaries conform to established neighborhood areas wherever possible and should aim at reducing the amount of necessary busing. Definitive boundaries cannot be determined prior to an accurate analysis of the number of school-age children in each portion of Town, as well as the anticipated increase due to proposed or planned developments, and the capacity of the schools and their ability for expansion. However, the feasibility of including all areas south of Paradise Drive in the Reed School District should be determined.

LIBRARY SERVICES. The county's branch library in Corte Madera is located in the western section of Town on Meadowsweet Drive. Budget problems have resulted in slow book acquisition so that the library collection is about half its shelf capacity. The Town should request that the county provide

additional funds to the Corte Madera Branch for an accelerated acquisition program to provide better service and increase monthly circulation. If a Town newsletter is created, publicity of library services should be included.

RECREATION. Major improvements are necessary to the Town's recreational services. New park lands should be developed to alter the present 2 acres/1,000 persons to a minimum of 5 to 6 acres of park land for each 1,000 persons. Park areas should be distributed throughout Corte Madera and publicity regarding parks and park programs should be widely and actively disseminated.

The Open Space and Conservation Element makes several recommendations for future park lands to primarily serve local residents. Including the existing Town Park, these recommendations would provide a total of 79.6 acres of park land. Should the Fire Department substation on Paradise Drive become available, a high priority should be given to its use for public recreation.

In addition to the local-serving recreation areas, region-serving parks prospectively include a 74.5 acre shoreline park on the Muzzi Property and a series of county-wide trails over the Tiburon Ridge and the Northridge, also recommended in the Open Space and Conservation Element. Improvements in the existing play facilities at the public schools will further increase the amount of land available to residents for active recreation programs.

A major concern must be to improve and increase publicity of the park programs to attract additional revenues and to maximize services. Some of the methods which could be employed are the mailing of circulars to each Corte Madera household, distribution of information through elementary and secondary schools, laundramats, supermarkets, pharmacies, cleaners, beauty shops, the library and all other public and private establishments that cater to the local population. Further, a community newsletter circulated to all Corte Madera households should contain information on all public proceedings, programs and plans that affect the Town, including its recreation services. The latter would probably be the most effective and efficient since costs would be shared by many Town departments and civic organizations.

Consolidation of recreation services between Corte Madera and Larkspur should also be considered as a means to reduce costs and improve the variety of services available to all residents. This proposal is discussed in more detail on page CS-20.

POLICE PROTECTION. Present police services appear to be adequate although new developments, such as new commercial facilities or new housing, may require an increase in the number of personnel in order to maintain the current ratio of approximately 1½ sworn officers per thousand population. New commercial facilities will cause an increase in crimes such as shoplifting and auto theft. Although internal security and traffic problems will be the responsibility of a private security force, all crimes must be reported to the Police Department and violators apprehended. This will call for an increase in personnel due to the increase in work load. Environmental Impact

Reports prepared for each new development must adequately address themselves to the need for increased police protection and an analysis should be prepared documenting this increased Town cost and the extent to which it will be offset by the tax revenues produced by the project. In addition, as more police officers and/or office personnel are needed, an assessment must also be made of the ability of the present physical facilities on Tamalpais Drive to adequately handle the new employees.

HIGHWAY PATROL. The California Highway Patrol is relocating, and it is the Town's policy to encourage them to relocate in the immediate area, subject to consideration of cost, accessibility, compatibility of land uses and site availability.

FIRE PROTECTION. A high priority should be given to the upgrading of the fire safety in buildings in the Town, including the installation of new steamer-type fire hydrants, addition of firemen as needed. It is the Town's policy that there will be a continuation of both a paid and a volunteer force. Every effort should be made to enhance both aspects of this service.

WATER SUPPLY. The Marin Municipal Water District is responsible for providing water for the area encompassed by this General Plan. The policy is to encourage adequate supply to cover the needs of the community with particular emphasis on fire protection. There is presently a water moratorium, and new service connections are not generally permitted except under conditions outlined in the District ordinance. The policy of the District is to require that all processing and approvals be obtained by a developer prior to the District's consideration of extension of water service.

Most sites above 190' elevation pose water problems. Since the present water supply is adequate to serve existing Town developments, all new project proposals must be considered on an individual basis and their water requirements and supply solutions carefully assessed prior to Town approval.

SANITARY SEWERS. Proposed future development of commercial facilities at U.S. 101, as well as new residential developments, would reduce excess capacity to the point that demand would exceed contracted capacity. This will require that District No. 2 negotiate a new treatment contract with Sanitary District No. 1 or expand District No. 1 treatment facilities. The former alternative is not likely at this time, due to the cease-and-desist order imposed on District No. 1 by the Regional Water Quality Control Board. The latter alternative would present problems in financing and justification of costs for District No. 2 since consolidation with other sanitary districts is highly likely in the near future. This action would result in construction of a new regional sewage treatment facility to eventually replace the existing District No. 1 plant.

Therefore, all new developments that will cause a demand greater than is available under the present contract should be denied approval until an additional or regional facility is provided.

STORM DRAINAGE. A study released in December 1970 by Yoder-Trotter-Orlob & Associates (Y-T-O) recommends improvements in the Town's storm drainage system in order to adequately protect against flood hazard throughout Corte Madera. Original cost estimates for the work was \$1.3 million, but this figure has increased substantially since that time. Although the Town Council officially adopted the report, they elected not to proceed with the project at that time since it required a bond issue to finance improvements.

Since the Y-T-O report has been officially approved, the Town can require a developer to provide the study's recommended flood control measures in his area, such as the downstream facilities in Madera del Presidio. This will help reduce some costs to local taxpayers. However, most of the remaining developable sites are in hillside areas where run-off, rather than flooding, is the problem. Therefore, most of the expense in upgrading the Town's drainage system will be in the shoreline areas of man-made fill. As a result, dependence on private developers to improve the storm drainage system should be viewed with caution. The Town should postpone storm drainage improvements only to those sites which do not significantly contribute to the run-off that floods the low-lying areas.

The Town should immediately embark on a concentrated program to implement the Y-T-O recommendations, particularly in the low-lying areas most subject to flooding. Use of funds other than general obligation bonds should be considered first to avoid additional tax burdens on local residents. Unfortunately, recent federal cutbacks in spending may result in the termination of Water and Sewer Facilities Grant funds in the near future.

Other small-scale, but critical, improvements in other parts of the Town can continue to be financed through the Town's general funds. Thereafter if federal funds become available, the Town should apply for a grant to complete the entire program.

REFUSE COLLECTION. The present once-a-week rate of refuse collection and three trash pick-ups per year is considered to be adequate. Extra services shall be available upon demand for appropriate fees under the franchise agreement.

CITIZEN PARTICIPATION. Improvements in the cable television capability could establish a means to provide free public announcements. Since a majority of the households in Corte Madera take advantage of the cable television service, this could be an excellent method for providing information to a maximum number of people. The station could also be used for public forums, whereby citizens and public officials could have the opportunity to discuss opinions before a large viewing audience.

In addition to the above, the Town should maintain standing committees, in conjunction with Planning Commission and Town Council members, to continually review and monitor the Corte Madera General Plan. This will assure that all proposals are complementary to the provisions in the Plan and that the document is revised as necessary.

COMMERCIAL FACILITIES

Commercial facilities are important to Corte Madera not only to diversify the tax base and alleviate some of the tax burden from the homeowners, but also to provide goods and services within a reasonable distance from their homes. From this aspect, commercial development can be regarded as a necessary community service. Furthermore, an expansion of facilities will provide additional employment opportunities for all income groups in the area. However, the need to diversify the tax base must not over-ride the aim of maintaining the small-scale character of Corte Madera. Any new development must be compatible with this goal and, therefore, review should be made of the scale of the proposed facilities; its design including height; materials and bulk; its traffic impacts; its impact on public services; its environmental impact and its relation with existing development. Policies regarding major types of commercial facilities - neighborhood and community-serving, region-serving retail and office/industrial are presented below.

NEIGHBORHOOD AND COMMUNITY-SERVING COMMERCIAL. The major purpose of these commercial districts is to provide a sufficient level of convenience goods and services to the various neighborhoods within the Town. Some of these centers also contain more specialized service facilities used by all residents, but which would not be appropriate in a larger, regional shopping center.

1. Village Square. This commercial area in the vicinity of Tamalpais Drive, Redwood Avenue and Corte Madera Avenue should be maintained within the existing geographical area. The area should be redesigned into a more cohesive local shopping district with Menke Park serving as the focal point both for the development and as a meeting place for the community. The area should continue to include such neighborhood scale facilities as a hardware store, pharmacy and small market that are necessary for local residents. In addition, small restaurants, bookstores, coffee shops and perhaps even a few specialty shops could be integrated within the neighborhood development to promote small-scale social interchange. It is possible that expansion of some of the existing parcels could be permitted, but only after the completion of a precise plan for the total area. Street improvements, such as landscaping, lighting and sidewalks, could be financed through a Benefit Assessment District whereby the benefited commercial establishments would be assessed at a higher rate until the Town is repaid for the improvements. Necessary remodeling to the shops themselves would be the responsibility of the owners, and the plan developed for the area should make recommendations to achieve a consistency and integration in design.
2. Paradise Drive Shopping Center. This area should serve as the primary neighborhood center for east Corte Madera. Most changes in the center should be restricted to improvements in landscaping, lighting and visual buffering from Paradise Drive and adjacent residential developments. Increases in population east of the freeway should help the economic viability of this area as a neighborhood serving center.
3. Park Madera Center. Approximately three acres are designated as a neighborhood and community serving commercial center on the north side of Tamalpais Drive in the 400 block. The primary intent is to provide for retail sales and personal services for residents and workers in the immediate area.

REGION-SERVING RETAIL. A new regional shopping center to supplement the existing Corte Madera Center is needed to serve the residents of southern and central Marin County. Approximately 45 percent of all retail sales for consumer goods are purchased in adjacent counties, primarily San Francisco which substantially reduces the amount of sales tax revenue available to Marin cities and increases the amount of automobile travel necessary for shopping. A comparative analysis among three potential shopping center sites located in Marin, as well as the option of not increasing facilities in the county, has shown that Corte Madera is the best site for a new center. This location will result in the least amount of miles driven for shopping purposes and is most convenient in terms of being accessible to future transit proposals.

1. Regional Shopping Center. An analysis of undeveloped lands that are zoned for a commercial use and meet region serving retail criteria point out a 75 acre site located east of the freeway and north of the Tamalpais interchange. However, when consideration is given to preserving a valuable portion of this site for ecological and open space purposes there remains only about 45 acres that are usable. Almost all of the usable acreage is located south of the two ponds and directly across the freeway from the existing Corte Madera Center.

If and when the 45 acre site is developed the 32 acres of ponds and surrounding open space should be preserved as a natural habitat area. Because the developable site is in a sensitive position within the townscape special criteria must be followed to arrive at the most viable development plan. Besides coming under the Design Review process now in effect, additional development criteria must be adhered to and will be administered by way of a mandatory Planned Development District. Some of the development standards and design criteria that are necessary follow:

- A. Off-site improvement costs are to be borne by the developer;
- B. Permanent preservation of the 32 acre marsh which surround the two ponds shall be accomplished;
- C. Limit the development on the remaining 45 acres to not more than 670,000 square feet of leasable floor area;
- D. The mixture of uses shall be limited to an office and commercial mixture and designed to compliment each other through the guidance of the Planned Development District process;
- E. Structures are to have a low profile enhanced by creative landscaping and reflect the aesthetic requirements imposed on the site by its position within the various view corridors between the Bay and surrounding hills;
- F. No project is to be approved unless a satisfactory solution for the traffic generated by that use can be established and is proven to be feasible;
- G. No occupancy permit is to be granted for any development until the associated traffic projects have been completed to the point necessary to facilitate the proposed development;
- H. Require a long-term maintenance bond or other adequate guarantee against damage from future subsidence and related soils or physical problems that result from the proposed development;
- I. All changes to surface or subsurface drainage due to any proposed development shall be countered by properly engineered projects (which might include pumping facilities, raised dikes, etc.) to protect surrounding areas.

2. Corte Madera Center. The existing Corte Madera Center covering 25 acres is also a region serving retail center. This center should be upgraded to current design and traffic circulation standards. The Town should encourage the owners in planning modernization of the Center. The impact of a new commercial development in Southern Marin could be substantially adverse unless the Center is in a position to compete effectively for tenants and patronage. Directly north of the existing Corte Madera Center and considered part of the region serving commercial area is the Edgewater Motor Hotel.

3. San Clemente Auto Sales Center. This 26-acre site bounded by Tamalpais, San Clemente and Paradise Drive has been partially developed, mostly with automobile and motorcycle sales and service centers. Additionally, the area contains a lumber yard, pet hospital, small office building and other assorted service-type facilities, some of which are in poor physical condition. Some of this area is subject to flooding, and fragmented parcelization has made it impossible to establish a cohesive development pattern. Located at a major entryway into Corte Madera and visible from vehicles passing through on the freeway, the older development is a visual liability to the Town. Future development in the area should be consistent with existing uses. These uses are compatible with its freeway location both for its direct freeway access and its isolation from residential areas. Landscaping and standards for building siting and design (including height, materials and form) should be established in a manner sensitive to the area's important visual location.

4. Meadowsweet Drive Commercial Area. This area, consisting of automobile sales and services, motel and restaurant, on the west side of the freeway, should continue its present highway-related function. The Town should adopt more stringent design, landscaping and sign criteria so that the siting, form, height and materials of structures are more responsive to its location adjacent to the scenic highway and are more compatible with adjacent residential uses.

OFFICE/INDUSTRIAL SERVICE DISTRICTS. Any additions to Office and Industrial Service Districts in the Town should be developed under the Planned Development Ordinance. These districts will provide additional employment opportunities for Marin residents, and they should be located near the freeway to permit direct vehicular access for both employees and truckers. Development should be confined to those businesses which maintain a low to medium employee density in order to avoid large increases in vehicular traffic.

CIRCULATION AND
SCENIC HIGHWAYS
ELEMENT

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CIRCULATION ELEMENT

PURPOSE

The aim of the Circulation Element is to provide residents with improved access to jobs, goods and services in a manner that is also consistent with environmental quality goals. The Town's circulation system bears a close relationship to other Plan elements since the precise location of transportation rights-of-way will greatly effect land development patterns. In addition, the decision regarding the location of major rights-of-way must be based on serving as many people as possible with minimum environmental disruption.

The land area and facilities needed to accommodate a population dependent on the private automobile are enormous. Now, however, as we are rapidly approaching our capacity to provide those facilities, it is clear that an alternate system must be developed. There are many residents who simply have no access to automobiles or are too young or old to drive. It is increasingly evident as well that for reasons of social impact, pollution and land conservation, more land cannot be devoted to the automobile. This Element is therefore, concerned with providing recommendations for an alternate circulation system for Corte Madera.

TOWN-WIDE POLICIES

The following policies set the framework for a balanced transportation system which integrates vehicular, transit and pedestrian movements and systems. The policies are followed by a summary of existing facilities and conditions, specific recommendations for the design or redesign of facilities, and funding sources for implementation.

To insure the development of a circulation system that will best serve the residents of Corte Madera, it should be the policy of the Town:

1. To assure that the design of all new transportation rights-of-way be consistent with the small-town scale and character of Corte Madera and promote the maintenance of the natural appearance of the surrounding hills and ridges;
2. To discourage the use of local roadways by commuters during peak hours;
3. To avoid further increases in vehicular volumes on roadways which are approaching or already have reached their peak-hour capacity;
4. To provide safe access throughout Corte Madera for motorists, bicyclists and pedestrians by upgrading dangerous interchanges, intersections and roadways, including local and through routes, where consistent with other circulation policies;
5. To minimize the intrusion of vehicular traffic and its associated visual and noise impacts into residential areas;
6. To limit street development within the Town boundaries to an internalized pattern. Access beyond the Town limits is to be confined to the streets, rights-of-way and other transit facilities presently designated for this purpose;
7. To reduce the dependency on the private automobile by promoting local and regional public transit to provide access to jobs and services, as well as to improve air quality;
8. To improve the visual aspects of streets, roads and bicycle paths by the use of landscaping and trees where appropriate.

EXISTING CONDITIONS

Reliance by residents on the automobile for commuting purposes is high in both Corte Madera and the rest of the county. This dependence has resulted in many problems: severe traffic congestion during the peak commuting hours, an increase in noise and air pollution levels. Within this section, existing travel patterns, traffic and transit and pedestrian circulation conditions and problems are described in detail.

MOBILITY. Tables C1 and C2 indicate the employment destinations and the mode of transportation used by each of the 3,799 employed Corte Madera Workers in April 1970; of these, only 35.8 percent worked in Marin County. Nearly half of all commuters worked in San Francisco, with 789 persons (20.8 percent of all commuters) working in the San Francisco central business district. According to Table C2, 69.2 percent of all Corte Madera commuters travelled to work as a driver of a private automobile and another 12.3 were passengers. In all, 81.5 percent of the commuters used automobiles to get to work, whereas only 453 persons (11.9 percent) used the bus. Since the time this information was collected, the bus and ferry system to downtown San Francisco has been improved by the Golden Gate Bridge District and is carrying significantly more passengers than the former Greyhound system. Because of the success of the program, it can be assumed that use of the private automobile for commuting purposes has decreased somewhat and use of ferry and bus has increased.

Nevertheless, the fact that nearly half of all Corte Madera households had two or more cars available illustrates the degree to which the transit system must compete with the private automobile. At present, the transit system emphasizes the commute to downtown San Francisco; it can therefore, be assumed that most residents working at other destinations still rely on their cars. Overall, Corte Madera residents reflect mobility characteristics not unlike that for the county as a whole, except that a much larger percentage of Corte Madera residents commute out of the county each work day than do Marin County residents as a whole.

TABLE C1
PLACE OF WORK FOR CORTE MADERA
AND
MARIN COUNTY RESIDENTS
(1970)

Destination	CORTE MADERA				MARIN COUNTY			
	Persons		Percent		Persons		Percent	
San Francisco County	1,886	789*	49.6	20.8*	29,662	13,071*	36.0	15.9*
Marin County	1,360		35.8		40,175		48.7	
Alameda County	128		3.4		2,005		2.4	
San Mateo County	82		2.2		1,988		2.4	
Contra Costa County	12		0.3		868		1.1	
Other **	331		8.7		7,725		9.4	
TOTAL	3,799		100.0		82,423		100.0	

* San Francisco Central Business District

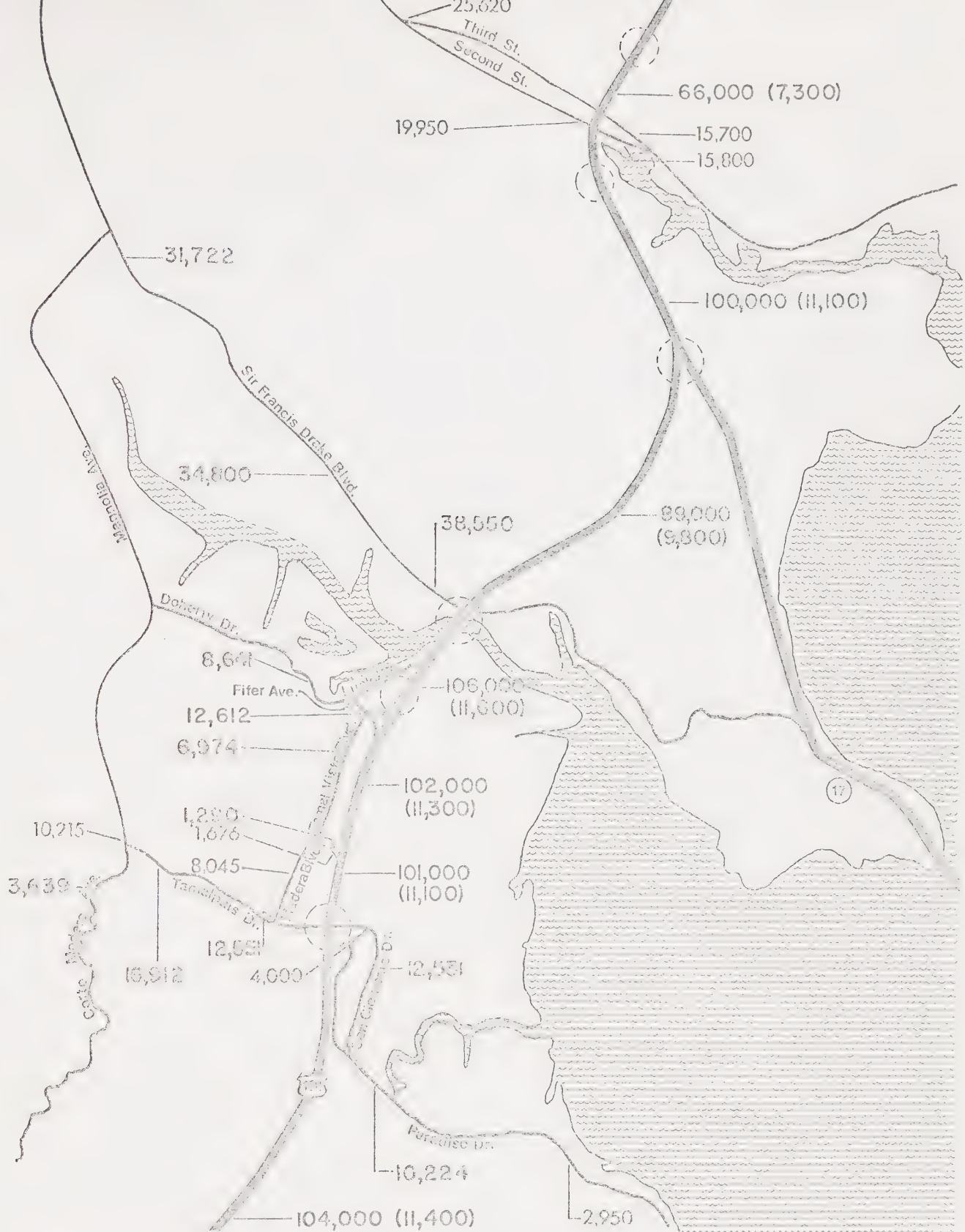
** Includes Sonoma County and other areas outside of the San Francisco-Oakland SMSA, as well as those not reported in the census count sample.

FREEWAY CONDITIONS. Corte Madera is located in a critical position along U. S. 101, the major north-south vehicular and transit route in Marin County. Large volumes of traffic from the Upper Ross Valley (Greenbrae, Kentfield, Ross, San Anselmo and Fairfax) and San Rafael use Sir Francis Drake Boulevard and Second Street to gain access to the freeway and, when heavy congestion occurs on 101, traffic from these roads bypass parts of the congestion by way of Magnolia Avenue and Doherty Drive in Larkspur and Tamal Vista Boulevard, Tamalpais Drive and Corte Madera Avenue in Corte Madera. Some of the southbound traffic on the freeway often exits at Fifer Avenue and then uses Tamal Vista Boulevard and Madera Boulevard as a bypass.

U.S. 101 is built to freeway standards from the Golden Gate Bridge to a point north of Novato. Traffic is heavy for several hours of the day through Corte Madera and congestion is often severe during the morning and evening commuter peak hour when approximately 11,450 vehicles pass through the area, as shown in Figure C1. During the evening peak hour about 7,884 of these vehicles are going northbound, thereby exceeding the design level of service. As a result the traffic is experiencing forced flow at low speeds, and portions of the freeway serve as storage areas during all or part of the peak hours. The California Division of Highways has widened the freeway to four lanes in each direction within the existing right-of-way, two of which are used exclusively as bus lanes. During the peak traffic hours. Even with this extra lane, however, the roadway only accommodates existing peak volumes at low speeds and is not sufficient to handle expected traffic increases due to population growth in the county. However, plans to expand and upgrade the county's transit system should help alleviate some of the heavy traffic conditions.

In addition to the high traffic volumes, the present design of the freeway and interchanges has also contributed to the congestion.. Southbound, there are three interchanges (Lucky Drive, Madera Boulevard and Tamalpais Drive) over a distance of little more than a mile, causing dangerous weaving conditions for entering and exiting vehicles. There is also a very short and therefore dangerous weaving section in both directions between the Sir Francis Drake Boulevard (in Larkspur) and Fifer-Lucky Drive interchanges. The Tamalpais Drive interchange is hazardous and the full cloverleaf design contributes to the dangerous weaving conditions in both freeway directions. East of the interchange, four roadways meet without benefit of a traffic signal (the northbound freeway exit, Tamalpais Drive, Paradise Drive and San Clemente Drive), resulting in a condition that is confusing and dangerous to both motorists and pedestrians.

STREETS. Throughout the county the most dense development lies immediately east or west of U.S. 101. East-west roads mainly serve local needs and provide access to residential and commercial developments in the eastern corridor of Marin. The major exceptions are California 17 (the Richmond-San Rafael Bridge) and California 37 which connects with Interstate 80 at Vallejo. Sir Francis Drake Boulevard and Second and Third Streets (a one-way couplet) are the only two access routes through the Upper Ross Valley and San Rafael to and from the freeway. Traffic on these roads is extremely



SOURCES: State of California, Division of Highways; Marin County Traffic Department; San Rafael Department of Public Works; Corte Madera Department of Public Works

FIGURE C-1
AVERAGE DAILY TRAFFIC VOLUMES, 1974

90,000 Average Daily Traffic
(9,800) Peak Hour Volume US 101

○ Interchange



heavy, as shown in Figure C1. Directly west of the freeway, Second and Third Streets carry a combined daily traffic volume of 45,570 vehicles, compared to a designed capacity of 25,000. As a result, many motorists use Magnolia Avenue, Doherty Drive, Lucky Drive and then enter the freeway at Fifer Avenue in order to avoid Sir Francis Drake Boulevard during the commuter peak. Others continue on Corte Madera Avenue, the extension of Magnolia Avenue into Corte Madera, and then use Tamalpais Drive to gain access to the freeway. Some of these streets, particularly Corte Madera Avenue, are narrow residential streets not capable of handling this excessive flow of traffic. This has caused safety problems to residents and bicyclists who also use the road and has interfered with the living patterns of the residents of the neighborhoods.

Other motorists using U.S. 101 exit at the Fifer Avenue-Lucky Drive interchange and use Tamal Vista Boulevard. Madera Boulevard and Casa Buena Drive as an alternative to the freeway through Corte Madera. This has resulted in an excess of traffic along these roads causing a disruption to businesses and residences.

PUBLIC TRANSIT. The Golden Gate Bridge, Highway and Transportation District has the authority for the provision of public transit within Marin County and provides the major commuter service to San Francisco. Present weekday service includes express buses to downtown San Francisco leaving Corte Madera during the morning peak period between 6:00 A.M. and 9:00 A.M., and express buses on the return trip leaving San Francisco between 4:00 P.M. and 7:00 P.M. Approximately two buses per hour run between the two cities at most other times, although there is no service from about 1:00 A.M. to 5:30 A.M. Local service connects Corte Madera with many other Marin cities during the day. However, all of the District's local bus service in Marin is subsidized by the County. An increase in this subsidy, as requested by the District, has put the future and the quality of service in jeopardy since the county is reluctant to pay the higher amount. Regularly scheduled ferry service to San Francisco is also available from Tiburon and Sausalito and a new terminal is planned on Corte Madera Creek on the San Quentin Peninsula.

The Golden Gate Bridge District is currently involved in a study to upgrade commuter service by employing exclusive rights-of-way with the possibility of eventually converting the bus system to rail. Five Alternative route and vehicle schemes have been developed for the County and San Francisco, and the present study is concerned with the determination of the exclusive right-of-way in the San Francisco portion. Future studies will determine alignment and mode in Marin, probably involving the use of U.S. 101, the Northwestern Pacific Railroad right-of-way, or a combination thereof. In the meantime, the District is experimenting with an exclusive bus lane operating along U.S. 101 in the lane not experiencing peak hour flows. That is, a southbound lane is used for northbound buses during the evening commuter peak in Southern Marin over the Waldo Grade. This has substantially reduced travel time for this heavily congested portion of the freeway.

TABLE C2
MODE OF TRANSPORTATION TO PLACE OF WORK
FOR
CORTE MADERA
AND
MARIN COUNTY RESIDENTS
(1970)

Mode of Transportation	CORTE MADERA		MARIN COUNTY	
	Persons	Percent	Persons	Percent
Private Automobile: Driver	2,628	69.2	57,817	70.1
Private Automobile: Passenger	464	12.3	8,773	10.7
Bus	453	11.9	6,180	7.5
Walk	60	1.6	3,225	3.9
Work at Home	104	2.7	2,870	3.5
Other*	88	2.3	3,558	4.3
TOTAL	3,799	100.0	82,423	100.0

* For Corte Madera residents this would most likely be ferry service to downtown San Francisco and bicycles.

Although all Marin-San Francisco bus service was directed toward the commute to downtown with no stops in between, an agreement in June 1973 between the District and the San Francisco Municipal Railway (Muni) has allowed passengers to stop prior to downtown and connect with Muni buses and reach such work destinations as Kaiser Hospital, Sears, the University of California Medical Center and St. Joseph's Hospital. The route also facilitates transfers to other main San Francisco corridor routes. This should result in increased commuter use of the bus system since 58 percent of all Corte Madera residents working in San Francisco are employed in other than the central business district.

PARKING. Present Zoning Ordinance regulations require one off-street parking space for each single-family residence in R-1-A and R-1 districts, and a minimum of one and one-half spaces for each unit in multiple dwellings. However, as shown on Table C3, 49.8 percent of all occupied Corte Madera households had two or more automobiles available to them in 1970 and, in light of the higher number of car sales nationally in the past three years, it is likely that this percentage has increased. Although the term "available", is not necessarily synonymous with ownership, it can be reasonably assumed that most of these households park at least two cars at the place of residence. The purpose of requiring off-street parking, as stated in the Zoning Ordinance, is to prevent traffic congestion and shortage of curb spaces. However, since most of the households now have two or more automobiles, one of these vehicles is probably parked along the street, defeating the intent of the zoning provision.

PEDESTRIAN AND BICYCLE. Pedestrian and bicycle access throughout Corte Madera is limited and often unsafe. Access between east and west Corte Madera is extremely hazardous over the Tamalpais Drive interchange since the only sidewalks provided are for bus stops at the freeway elevation. There is a vehicular underpass at the railroad tracks, corresponding to William Avenue, but this is far from the eastern residential population. Since most of the Town's services and facilities are located west of the freeway, the use of these facilities by residents living on the east side is often limited to those with automobiles. One of the most affected groups are children wishing to use the Town Park or Public Library. Development of recreational trails has also been sparse. There are few hiking trails in the ridges which separate Corte Madera from Tiburon, Larkspur and Mill Valley.

TABLE C3
AUTOMOBILE AVAILABILITY TO CORTE MADERA
AND
MARIN COUNTY HOUSEHOLDS
(1970)

No. of Automobiles Available	CORTE MADERA		MARIN COUNTY	
	No. of Occupied Housing Units	Percent	No. of Occupied Housing Units	Percent
1	1,409	45.4	27,797	44.1
2	1,322	42.6	27,920	41.3
3 or More	226	7.2	5,247	7.8
None	150	4.8	4,642	6.8
TOTAL	3,107	100.0	67,606	100.0

SPECIFIC CIRCULATION POLICIES

Specific circulation policies for Corte Madera and its immediate environs are generally illustrated in the Circulation Element Map. These policies focus on the Town-wide policies enumerated at the beginning of this Element and expand the objectives into specific recommendations for: The improvement of the freeway and its interchanges; local roadways; transit; designation of scenic roadways and pedestrian and bicycle circulation. The goal of all recommendations is to provide a sufficient choice of transportation modes for all residents so that they may travel at maximum safety and minimum cost. Inherent in this goal is an attempt to cause minimum disruption to the natural and man-made environment by: (1) reducing total automobile usage; (2) preventing an increase in the number of vehicles on local streets and (3) reducing this current volume wherever possible. The satisfaction of this goal will add to the safety of residents, reduce air pollution and noise levels and enhance the livability of established older neighborhoods. A narrative description of the policies shown in the Circulation Element follows.

FREEWAY IMPROVEMENTS. Plans of the California Division of Highways to increase U.S. 101 from six to eight lanes from the Richardson Bay Bridge to California 37 is recommended as appropriate for the Town, but Corte Madera should strongly oppose any future plans to widen the freeway beyond these eight lanes. These extra lanes are necessary to relieve some of the present congestion, but continued expansion of the freeway will only serve to perpetuate the reliance on the private automobile. While it is generally recognized that the automobile will remain the major transportation mode within the foreseeable future, an increase in traffic congestion and a shortage of economical parking in major employment centers will force people to use transit. By making it easier to drive through a continual program of freeway widening, the chances of achieving a viable transit system for inter-county and intra-county travel is remote. Furthermore, Marin County cannot afford to devote much more of its land for automobile travel purposes, nor can the county allow an increase in automobile-induced air and noise pollution. Moreover, the energy crisis, with impending increases in gasoline prices and possible shortages will force more people to rely on public transit, particularly for commuting.

Any major development which would cause significant traffic increases must guarantee any necessary freeway interchange improvements before final approval is granted for the development.

Any and all modifications of the existing improvements within the State Highway right-of-way should be coordinated for conformity with the Town's General Plan. Proposed alternative plans for freeway modifications (Figures C-3 and C-4) have been prepared and are attached to this Element as an appendix for reference, but not as part of the General Plan.

LOCAL ROADWAYS. Corte Madera's location in a critical position along U.S. 101 has resulted in the use of many of its local roadways as freeway bypasses. Several of these streets are not adequate for the peak hour overloads that occur. From a review of county planning data, it appears that the streets should be adequate for traffic generated in Corte Madera and Larkspur alone if the diversion of additional loads from other areas in the north could be eliminated or substantially reduced. Providing additional capacity on streets through Corte Madera would not be a solution in any case because it would not relieve congestion on the freeway. Moreover, continual upgrading of local streets to improve capacity of automobile commuters will further delay good transit service in Marin County.

It is concluded, therefore, that in general the policy of Corte Madera should be to keep local streets at their present capacities except where intersection changes may be required for safety and improvements of efficiency consistent with the nature and function of the particular street.

In order to minimize the traffic originating north of Corte Madera and Larkspur from diverting through these two cities, most of the street improvements should be limited to those critical portions of the road system outside of Corte Madera to insure that traffic generated in other areas uses the most appropriate routes to U.S. 101.

Nine other roadway recommendations focus on the present street network and are geared to improve dangerous and confusing intersections, as well as to upgrade or realign some roadways to improve safety and facilitate a smoother flow of traffic. These recommendations are:

1. As part of the interchange improvements to a modified diamond pattern, the sharp turning movements from Tamalpais Drive to San Clemente Drive should be eliminated. One solution would be to design a "T" intersection at this point which could provide a base for further improvements on San Clemente Drive;
2. Upgrade San Clemente Drive in conjunction with the preceeding recommendation to a landscaped median-divided roadway to improve safety;
3. Improve traffic operation and safety at the intersection of Tamalpais Drive and Madera Boulevard;

4. Retain the existing street and intersection configuration at Tamalpais Drive, Redwood Avenue and Corte Madera Avenue. The intersection should not be improved as this would encourage through traffic to bypass Sir Francis Drake Boulevard;
5. Do not develop William Avenue (the railroad right-of-way) west of Tamal Vista for powered vehicles;
6. The access road to the area commonly referred to as Madera del Presidio should be along the railroad right-of-way off Paradise Drive, rather than in the location originally proposed;
7. Good signing and minimal electric signalization should be used to maintain low-profile, small-town traffic circulation systems;
8. No local streets should be extended or widened to serve any presently undeveloped area over the objections of adjoining or affected property owners including, but not limited to: Sausalito Street to Scott Valley; Endeavor or Westward to the Deffebach property; Corte Madera Avenue to the Northridge; William Avenue to Magnolia; Harbor or Echo Drive to the Muzzi Property;
9. Alta Way, Chapman Drive and Sausalito Street should not be improved to such an extent that they would be viable alternatives for traffic between Mill Valley and the freeway.

TRANSIT. The recommendations for freeway and street improvements in Corte Madera have been based on the assumption that facilitating greater ease in automobile travel will mean a delay in the provision of adequate transit services, and that this delay is not in the best interest of Corte Madera and Marin County residents. This assumption has led to a policy of reducing dependency on the private automobile, particularly for commuting purposes, and improving accessibility to jobs, goods and services for all residents in a manner consistent with the environmental quality aims of this General Plan. Therefore, the Town should encourage plans of other agencies to improve public transit to the degree that it offers all residents a viable alternative to the automobile and to the extent that the system is consistent with environmental quality aims and the improved livability of the neighborhoods. Clearly, improving the case of the automobile travel is far removed from environmental quality aims in regard to air and noise pollution and land conservation.

While communities in Marin County are not in a position to implement a county-wide transit plan, they can endorse plans of regional agencies and influence the county and the Golden Gate Bridge, Highway and Transportation Districts to provide necessary and desirable services. Also communities should promote circulation patterns which facilitate higher transit use. Each local jurisdiction will be asked to approve the choice of right-of-way for the intra-county transit system as it goes through their community and, therefore, the communities must adopt specific policies in advance

so that they have a basis for their decision. These policies and recommendations for Corte Madera follow.

1. Provide an exclusive right-of-way for transit in the corridor of U.S. 101 as soon as feasible. The exclusive bus right-of-way should be designed to permit its conversion to a rail or other high-speed, high-capacity system in the future;
2. Provide a transit station in the U.S. 101 corridor coordinated with the redesign of Tamalpais Drive interchange. This station will be equally accessible to all Corte Madera residents and would be located adjacent to commercial areas where parking arrangements could be made between the Transit District and the property owners. This location will also encourage people to use transit for shopping purposes as well as for commuting;
3. Investigate the feasibility of providing local shuttle transit service within Corte Madera to the transit station and shopping facilities, as well as to other social and community services in the Town and in adjacent communities;
4. Areas should be designated for (a) car-pool passenger pickup and delivery and (b) discharge and pickup of bus passengers transferring to or from private automobiles;
5. Bus shelters should be provided at any transit stops.

SCENIC ROADWAYS AND HIGHWAYS. State law now requires that general plans include a scenic highway element for the establishment, development and protection of scenic highways. Designation of such highways would enable the local jurisdiction to take the necessary actions to protect the scenic and historic assets of the area through which the highway passes. This could include regulation of land use, site planning, control of outdoor advertising, control of earth moving and landscaping, and the design and appearance of structures. Likewise, the local jurisdiction can designate local routes as scenic roadways and could establish similar design criteria for the lands adjacent to the rights-of-way.

In Corte Madera there are four streets which now possess or have the potential to possess those attributes which would qualify them to be designated as local scenic roadways. They are Paradise Drive, Tamalpais Drive and Corte Madera Avenue. San Clemente Drive should also be included because it provides the connection between Paradise Drive and Tamalpais Drive and will enable a continuous route. All of these coincide with the arterial street system in Corte Madera. Highway 101 has the potential of becoming a scenic highway through Corte Madera and through the rest of Marin County.

The following describes the proposed routes. The Circulation Element recommends the designation, whereas the section on Community Appearance and Environmental Quality recommends design principles and standards to assure that the scenic attributes of these roadways are maintained.

PARADISE DRIVE. This roadway is the only through route in east Corte Madera and around the Tiburon Peninsula to the City of Tiburon. It begins as a four-lane road as it passes by the housing development of Marina Village, Mariner Cove, Marin Estates, Mariner Highlands and then becomes a twisting two-lane road for much of the remainder of the route. Views from the roadway are constantly changing from water to hills, with a variety of vegetation and land forms, and the experience is quite different when travelling in either direction. Glimpses of the Bay are available at various points, and the higher elevation of the roadway near the northeastern end of the peninsula affords beautiful views of Corte Madera, Larkspur and adjacent communities as well as views of the western hills and ridges, including Mt. Tamalpais and lesser peaks.

TAMALPAIS DRIVE. Tamalpais Drive is the main route through west Corte Madera and is approximately one mile long. If improvements are made in the interchange with U.S. 101, and the roadway realigned, Tamalpais Drive will become continuous with the Paradise Drive through the connection over San Clemente Drive. A combination of land uses currently line Tamalpais Drive, including service stations, residences, commercial establishments, the Town Hall, police and fire departments, and the Town Park. However, the portion of the roadway from the freeway to the Town Park is four lanes with a well-landscaped median. Distant views from the street are impressive. Westbound are views of the hills and ridges with the dense, tree covered vegetation that has become the major image of the community; eastbound are views of the East Bay Hills and on clear winter days a snow-capped Mt. Diablo is often visible. This street provides the primary visual encounter with the western portion of Corte Madera and as such deserves special attention. Moreover, Tamalpais Drive will be the important scenic link between Paradise Drive and Corte Madera Ave.

CORTE MADERA AVENUE. This road winds through the hillier sections of Corte Madera and becomes Magnolia Avenue in Larkspur and Camino Alto in Mill Valley. North of Redwood Avenue, the street is lined with older retail establishments and homes. South of Redwood Avenue, development along the roadway becomes less dense and for the section over Corte Madera Ridge and into Mill Valley, most traces of urban environment disappear. The roadway is lined on both sides with a dense tree cover, and the narrow, two lane twisting road discourages high speeds.

U.S. 101. The portion of U.S. 101 through Corte Madera should be designated as an official California State Scenic Highway and be subject to all of the regulations thereof. Views from the roadway are spectacular in some sections in southern Marin: The Bay; San Francisco Skyline and the Golden Gate Bridge become visible immediately after the Waldo tunnel. In Corte Madera, the views are considerably varied when travelling either north or south; the expanse of open space to the north and west; The Bay with hills and ridges to the east and south. Future development should be regulated to provide more attractive landscaping and better attention to design and siting of adjacent structures. The Town should seek to upgrade the landscaping within the freeway corridor.

PARKING. It is recommended that Corte Madera amend its Zoning Ordinance to require that all new single-family residences, including all new types of housing in planned unit developments, be required to provide a minimum of two off-street parking spaces per unit. Although this provision would not be retroactive and, therefore, would not help in alleviating the on-street parking problem in established neighborhoods, it will prevent a further increase in parking problems. New provisions should also be required for multiple-unit dwellings. Although the Housing Element endorses the policy of providing larger apartments for families, most apartments will continue to be occupied by couples without children or by two or more unrelated individuals. In the latter situation, each person usually has their own automobile, thus creating a shortage of off-street parking facilities. Parking standards should be based on the size of the apartment, rather than on a single standard for all apartments. This requirement should be as follows: 1½ parking spaces for efficiency and one-bedroom; 2 parking spaces for two-bedroom; and 3 parking spaces for three or more bedrooms. This should provide sufficient off-street parking for all residents as well as for most guests. Additionally, existing ordinances, specifically the P D provision, should be redrafted so as to clearly provide for sufficient guest parking.

On site parking requirements for all proposed developments in all other zoning categories should be carefully evaluated to assure that automobiles do not spill over into other public streets.

PEDESTRIAN AND BICYCLE CIRCULATION. A pedestrian and bicycle network must be developed in Corte Madera to provide safe movement for the rapidly growing segment of the community that walks or relies on bicycles for local transport. Bicycling has not only become an extremely popular recreational activity throughout the United States, but is also being used by greater numbers of people as a transportation mode to get to work and school, to reach transit stations and for shopping and visiting. Motorized vehicles should not be allowed to use the exclusive bicycle and pedestrian trail systems. Wherever possible, the bicycle paths and the pedestrian paths should be separated.

1. The Northwestern Pacific Railroad right-of-way could be converted into a lineal park as recommended in the Open Space and Conservation Element, with a portion of the right-of-way devoted to the trail system. This route will traverse major portions of east and west Corte Madera, will provide more than 3.3 miles in a continuous trail in Town separated from vehicular traffic, and will provide access to such places as the Town Square, Redwood High School, Larkspur Ferry Terminal, proposed shoreline park and habitat preserve and the proposed commercial area east of U.S. 101. Additionally, short links can be provided to connect this trail with the Town Hall, Town Park, Neil Cummins School and the proposed transit station on U.S. 101;
2. Corte Madera should work jointly with the adjoining cities to extend the trail system into these communities;
3. Consideration should be given to providing bicycle and pedestrian trails through Madera Gardens in west Corte Madera so that a connection can be established between the Town Park and Redwood High School. This would also connect with the railroad right-of-way trail;
4. An exclusive bicycle and pedestrian overpass should be constructed between Paradise Drive and Casa Buena where it comes closest to Meadowsweet Drive (near Deer Run). This will afford safe access from east Corte Madera to the Public Library and other Town services west of the freeway. This pedestrian lane could then continue along Casa Buena Drive to Tamalpais Drive to Eastman Avenue where a signal provides a safe bicycle and pedestrian crossing to the Town Park and Neil Cummins School;
5. A trail system should be provided generally along Paradise Drive to provide a connection with the trail along the railroad right-of-way and over U.S. 101 as indicated in item number 4. Although the exact alignment of this trail will be determined after more extensive field surveys, it could run along or adjacent to the north side of the road. It could also be rerouted onto some less heavily travelled residential streets such as Spindrift Passage and then around the fire sub-station and over an easement through a portion of the vacant parcels to the west;
6. Easements could be acquired near the Bay and San Clemente Creek in east Corte Madera to provide a continuous Bay hiking and nature study trail from Corte Madera to Tiburon;
7. A hiking trail should be promoted along the Tiburon Ridge to connect Tiburon, unincorporated lands and Corte Madera. Links should be provided from the lowland portions of Corte Madera into the ridges. This would include trails through the Quarry site, Madera del Presidio, and the Deffebach Property. This network should then connect with the remainder of the county system to provide access to Tamalpais State Park, watershed lands and eventually to the other scenic and recreational areas along the Pacific coast;

8. When a transit station is developed within the highway right-of-way, access for pedestrians and bicycles should be provided for and connected to the town's overall trail system;
9. Existing trails, rights-of-way, and easements in various parts of the community provide in many cases open space, small lineal parks and pleasant pedestrian access ways. If these are available and of significant public importance, they are to be incorporated into this Circulation Policy.

RECOMMENDED IMPLEMENTING APPROACHES

Circulation Element policies call for the improvement of freeway safety, the reduction of through traffic on local streets, the development of a rapid transit system on U.S. 101, the institution of local transit service, the designation of scenic roadways, more stringent off-street parking requirements in residential areas, and the development of a complete network for pedestrians and bicyclist that is separated from vehicular traffic. Most of these policies will require direct capital costs if they are to be implemented. The exceptions are the amendments to the Zoning Ordinance for the provision of strict parking standards as discussed in the section on Parking above, and the designation of scenic roadways and highway in Corte Madera. For the latter, it will be necessary for the Town to recommend to the State Scenic Highways Commission that the portion of U.S. 101 through Corte Madera be designated as a scenic highway. If the Commission concurs with this recommendation, it will then forward the request to the State Legislature. Approval of this designation by the State Legislature will then allow Corte Madera to enforce specific design standards and principles along the right-of-way as outlined in the chapter on Community Appearance and Environmental Quality. It will be the responsibility of Corte Madera to designate the recommended local streets as scenic roadways and then adopt and enforce the necessary design standards.

Almost all of the remainder of the policies will require direct capital cost expenditures and most can be implemented through the use of county, state and federal monies. However, local contributions may be necessary in some cases where federal funds are involved, and improvements in inter-sections, new signals and portions of the pedestrian and bicycle network may, in part, be the financial responsibility of Corte Madera. Table C4, Sources of Funding for Circulation Improvements, lists major and alternative methods that can be employed to finance major circulation improvements. A short description of these sources is provided below.

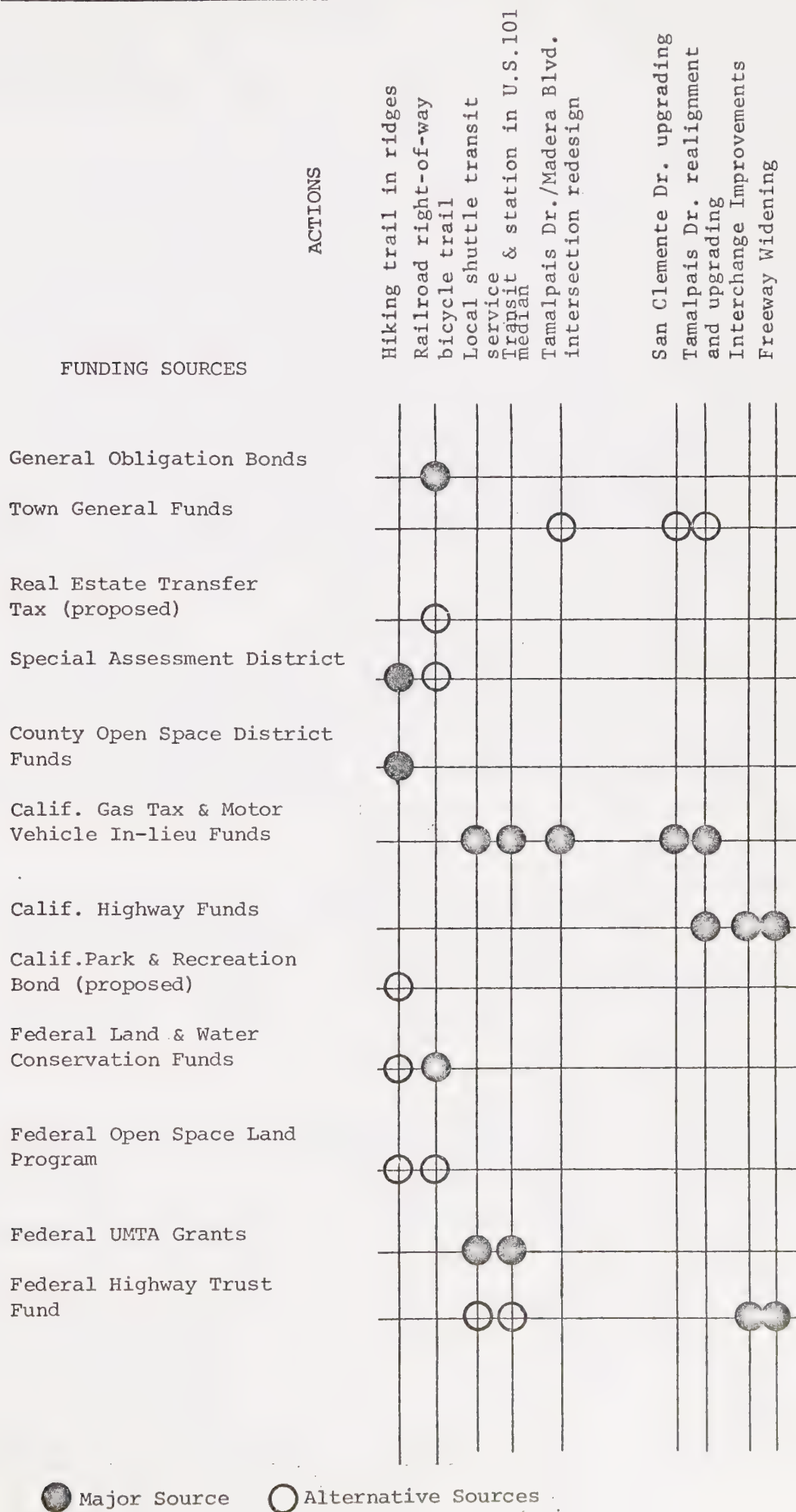
GENERAL FUNDS. The Town could appropriate monies from its general fund, via the annual Capital Improvement Program, for local transportation improvements which will provide for improved traffic safety. There is also an allocation of 0.25 percent of the general sales and user tax by the state to counties for local transportation.

GENERAL OBLIGATION BONDS. General obligation bonds can be a major source of securing the railroad right-of-way for a lineal park in Corte Madera. As part of this program, the pedestrian and trail system can be developed.

REAL ESTATE TRANSFER TAX. A potential tax source available to the Town of Corte Madera is the real estate transfer tax. Presently, the County imposes a transfer tax on property transacted within the Town at a rate of 11¢ per \$100 of value of property transacted exclusive of mortgage, of which one half of the monies collected are returned to the town. These revenues could be earmarked for open space and recreation purposes. As such, it can be considered as a possible alternative funding source to acquire the railroad right-of-way and develop the pedestrian and bicycle trail system.

SPECIAL ASSESSMENT DISTRICT. This financing technique can be applied to acquire land and develop recreational facilities in areas where the land overlaps several jurisdictions and provides benefits to these jurisdictions. This could include acquisition of the railroad right-of-way to develop a continuous bicycle trail to connect several adjacent communities. A more complete description of this financing technique can be found in the Open Space and Conservation Element.

TABLE C4: SOURCES OF FUNDING FOR CIRCULATION IMPROVEMENTS



Major Source



Alternative Sources

COUNTY FUNDS. County funds for the acquisition of some open spaces may be available from the recently created Marin County Regional Park and Open Space District. Funds will be available for open space purchases throughout the county on the basis of priority and can include the ridge-tops where the hiking trails will be located. A more complete description of this program can be found in the Open Space and Conservation Element.

CALIFORNIA GAS TAX FUNDS. These funds can be applied to construction, improvement and maintenance of streets and other vehicle-related facilities. As provided under SB1100 (1971), these funds also can be used for construction of separate bicycle lanes along state highways which conform to local general plans for development of such facilities. Acquisition of real property for such purpose also is eligible. The funds can be used as well to acquire lands adjoining or near highways, for park purposes, and to provide for maintenance of such parks. As provided under SB 36 (1972), \$30,000 a month could be allocated from the State Gas Tax Funds to cities and counties for use in construction of bicycle lanes along local streets and roads. In addition, some of the gas tax funds can be allocated for rapid transit improvements.

CALIFORNIA HIGHWAY FUND. This fund is used for the construction and improvement of all state roadways. This would include the widening and interchange reconstruction of U.S. 101. In addition, as provided under SB 36, indicated above, a minimum of \$368,000 annually would be allocated from the State Highway Fund to be used for construction of bicycle facilities along the state highway system.

CALIFORNIA PARK AND RECREATION BONDS. AB 392 (1972) enacted the State Beach, Park, Recreational and Historical Facilities Bond Act of 1974, authorized the issuance of \$250 million in bonds to acquire and establish beaches, parks, recreational facilities and historical resources. This potential funding resource could have an effect on implementation of the pedestrian and bicycle trail system through Corte Madera.

FEDERAL LAND AND WATER CONSERVATION FUND. This fund is administered by the Bureau of Outdoor Recreation of the U.S. Department of Interior, through the California Department of Parks and Recreation. Assistance is provided for acquisition and development projects approved by the state. Eligible development projects may include such varying projects as bicycle paths and hiking trails.

FEDERAL OPEN SPACE LAND PROGRAMS. This program is administered by the U.S. Department of Housing and Urban Development. Assistance is provided on a 50-50 matching basis to local public agencies to cover eligible costs incurred in a project that would: (1) provide, preserve, and develop open space land in urban areas; (2) acquire, improve and restore historic sites; and (3) develop and improve public urban lands for open space. Eligible development includes transportation and circulation facilities, landscaping and basic site improvements, including grading, planting, construction of retaining walls and fencing, installation of utilities, recreation facilities and equipment, including playground apparatus, game fields, fountains and equipment. While this program provides funds for which some of the proposed pedestrian and bicycle facilities in the Circulation Element are eligible, the prospect of securing assistance from this categorical program is not promising. Both the President and the Secretary of Housing and Urban Development have recommended that this program be terminated, probably at the end of this fiscal year or earlier, and be replaced as one component of the proposed Community Development (special) Revenue Sharing package.

FEDERAL URBAN MASS TRANSPORTATION ADMINISTRATION GRANTS. This grant can be used for two purposes: (1) capital expenditures such as acquisition, construction, reconstruction, or improvement of facilities and equipment for use in public transportation service in urban areas; and (2) demonstration projects to develop and test new facilities, equipment, pricing and operating policies, traffic flow, coordination of various modes of transportation and basic research. These grants may be applied to the inter-county transit system as developed by the Golden Gate Bridge District as well as an intra-Town shuttle transit service in Corte Madera.

FEDERAL HIGHWAY TRUST FUND. The trust fund, established in 1957 to use federal taxes on gasoline and other automobile-related products to build the now nearly complete interstate highway system, can also be employed for improvements to the urban highway system, such as U.S. 101. However, after months of negotiation, the U.S. Congress in July 1973 agreed to allow a small portion of these funds to be spent for urban mass transit. The money will be allocated to the state, and the amount to be used by the Golden Gate Bridge District is still uncertain. However, this is a potential source of income for direct capital cost expenditures such as new bus purchases, as well as developing express bus systems along the freeway. There is, however, also increasing pressure to permit a major diversion of the Highway Trust Fund to public transit purposes.

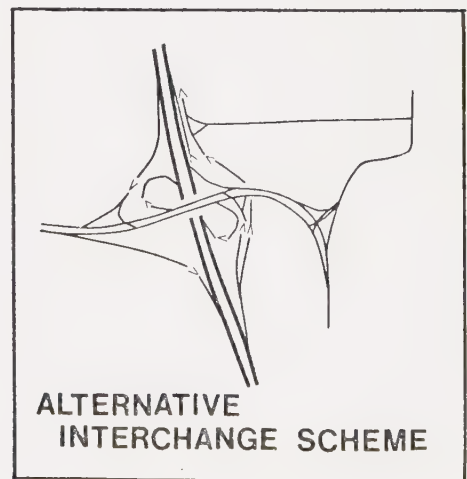
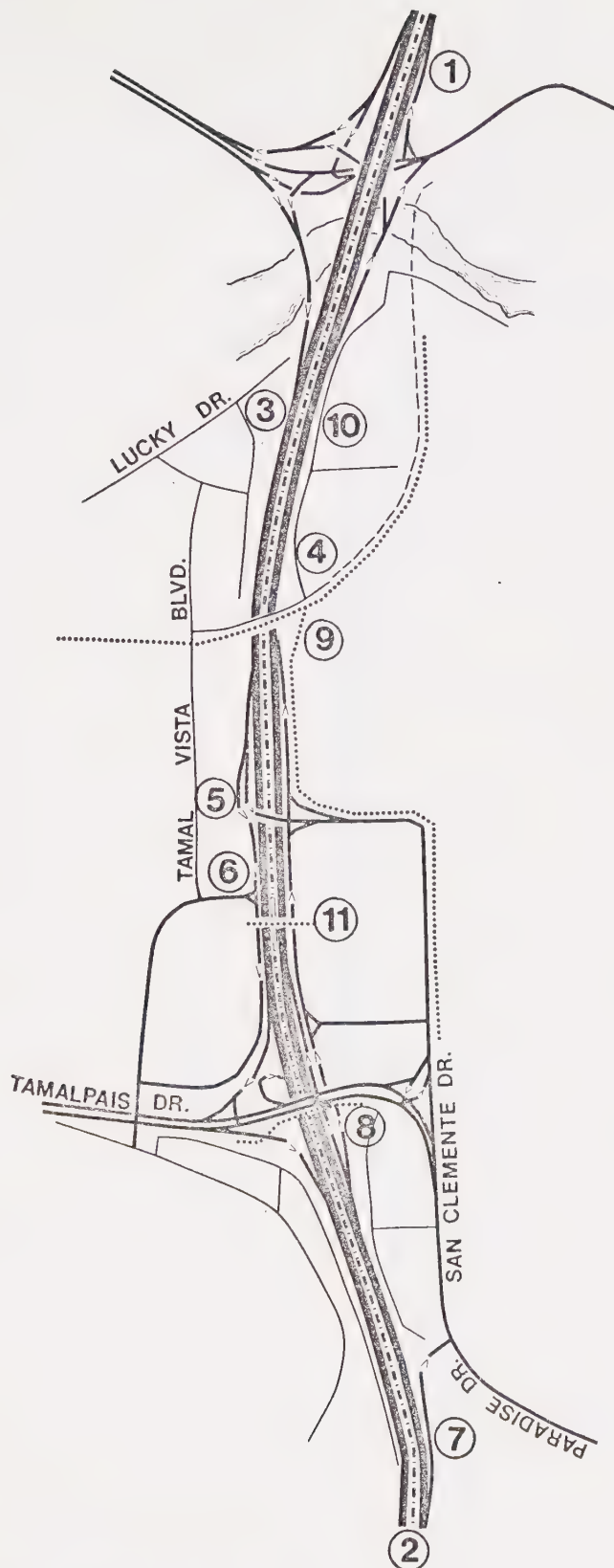


FIGURE C-2 See text for explanation of numbered improvements.
FREEWAY ALTERNATIVE A

- Pedestrian/Bicycle Trail
- - - - - Transit Right-of-Way
- - - - - Possible Future Road to
Ferry Terminal



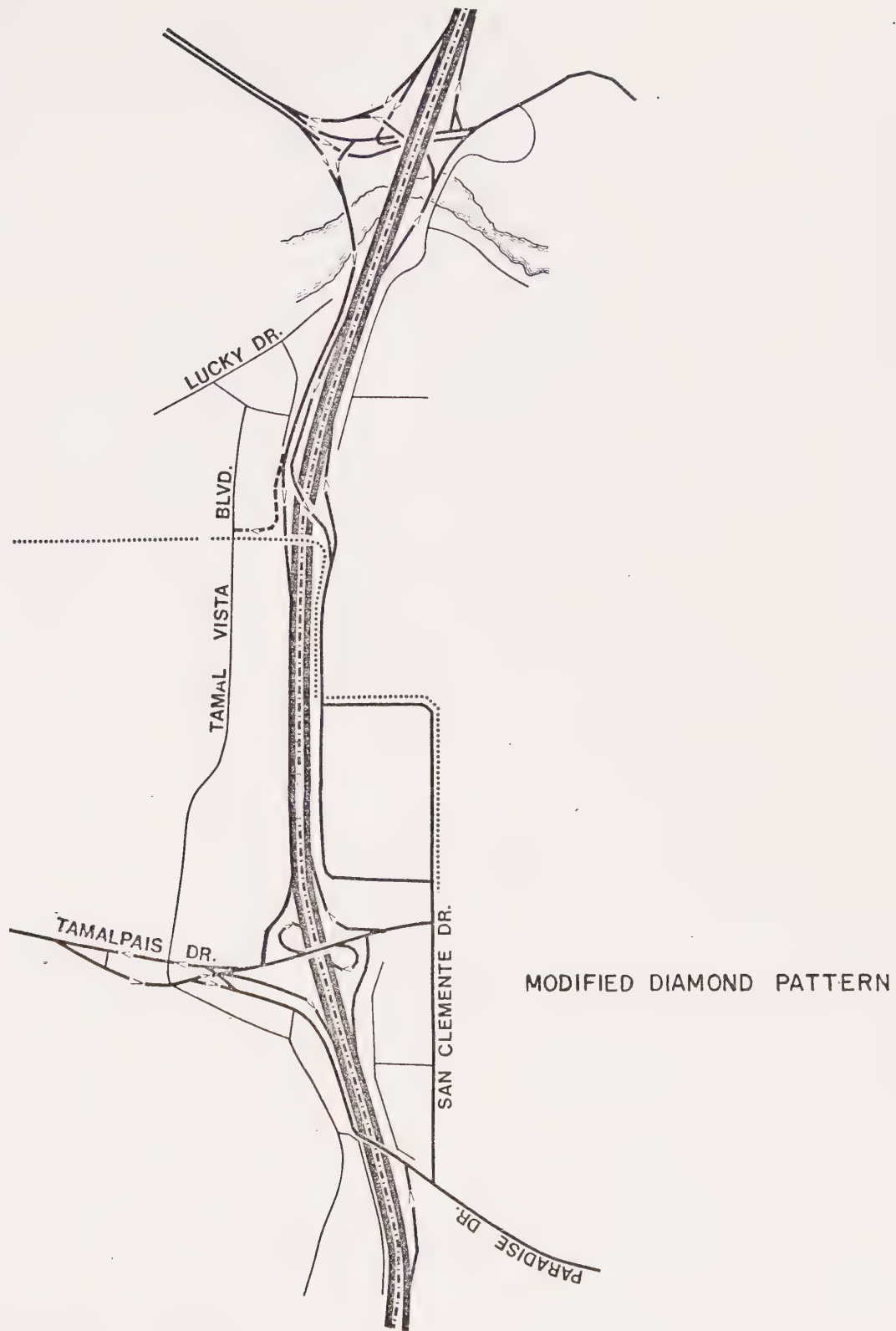


FIGURE C-3
FREEWAY ALTERNATIVE B

- Pedestrian/Bicycle Trail
- . - . - . Transit Right-of-Way
- - - - - Partial Access to Tamal Vista (Optional)



SEISMIC SAFETY ELEMENT

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SEISMIC SAFETY ELEMENT

PURPOSE

The purpose of the Seismic Safety Element is twofold: First, it serves to identify areas where soils, topography, geologic conditions, fire, seismic hazards or other factors constitute a potential threat to public safety; second, it provides public policy in response to identified hazards.

Initially, a series of general or Town-wide policies are recommended which provide a basic frame work from which to consider seismic safety factors. In the section on existing conditions, the presence of such hazard factors within the Corte Madera planning area is summarized. The area-specific policies which follow this summary represent an application of the more general Town-wide policies to specific geographic sites where seismic safety issues have been shown to exist. Finally, a program which describes methods to achieve policies is recommended.

In contrast to the Open Space and Conservation Element which was concerned solely with undeveloped lands, the Seismic Safety Element is concerned with all land in the Corte Madera planning area, developed and undeveloped. This Element does not assume that undeveloped sites with high open space values will necessarily be publicly acquired, but rather deals with these sites from a public safety standpoint and sets standards in case development should occur. For areas already developed, policies are recommended to strengthen existing regulations.

TOWN-WIDE POLICIES

The following general policies, considered critical to the Seismic Safety Element of the Corte Madera General Plan, represent a basic commitment of the Town to protect life and property of residents from natural hazards. Therefore, it should be the policy of the Town of Corte Madera:

1. To prohibit or regulate development on sites having a history or threat of slope instability, subsidence and seismic dangers including those resulting from liquefaction, shaking, ground failure, ground rupture, tsunami and seiche;
2. To prohibit development in areas subject to high fire hazard unless adequate water, water pressure and road access can be provided;
3. To prohibit or regulate development on sites with erodible soils to protect against personal dangers and property damage and to assure a level of development which will not result in further degradation of water quality;
4. To require detailed and comprehensive investigation of all sites proposed for development to determine geologic conditions in areas subject to geologic hazards, soil conditions in areas where the soil type is subject to building constraints and erosion and seismic hazards;
5. To periodically review building code requirements to determine the adequacy of standards to safeguard against seismic hazards of all kinds, and to assure that the code adequately reflects the latest technological advances.

EXISTING CONDITIONS

Within this section, conditions which pose a threat to the safety of residents of Corte Madera are summarized. A single type of hazard condition does not appear uniformly throughout the Town, but tends to localize in specific portions of the Town. The Seismic Safety Element Map depicts the location of hazards.

Flooding, a hazard which can severely affect the public safety, is presently a threat only to property in Corte Madera. Since the problem can be controlled through improvements in the storm drainage system, it is discussed in the section on Community Services and Commercial Facilities.

CLIMATE. The frequency and amount of precipitation over a given period of time can have a great effect on the stability of land slopes. Landslides, especially seismically-induced landslides, will be much more damaging if they occur after a period of heavy rainfall than when the ground is dry. The annual average rainfall in Corte Madera varies from about 24 inches in the east to as much as 38 inches in the higher elevations in the west. Appendix Figures S3 and S4 indicate the depth, frequency and duration of rainfall in Corte Madera which is useful for the study of both soil erosion and land slip-page potential.

SOILS. A broad analysis of soils and their properties is useful for planning purposes as an element in the determination of land capability and generalized land use. In Corte Madera there are three principal soil types: Tidal Flats, Laughlin-Parrish Association and Hugo-Josephine Association. A fourth soil association, Los Gatos-Maymen, is prevalent in the higher elevations of the Northridge outside of the Corte Madera Town boundary. Appendix Table S1 lists the major properties of these soils and Appendix Figure S5 indicates where the soil types are located. For the most part, the soils do not exhibit characteristics which present severe hazards to life and property. Problems with foundation soil pressure limitations are severe in the Tidal Flats, but these can be overcome to a large degree by proper foundation design. The Los Gatos-Maymen Association is the only one which exhibits high erosion hazard and rapid run-off. Although outside of the Town, the hazards potential of this soil association could have a direct effect on development on the lower slopes in the Town, particularly parts of the property formerly known as the Nichelini Property.

EROSION. Areas of erosion hazard have not been sufficiently documented in Corte Madera. Since conditions vary from site to site, thorough investigations must be made prior to any development.

A general review of local conditions indicates that the hillslopes within Corte Madera are underlain by bedrock materials of the Franciscan formation covered by a varying thickness of residual and colluvial soils. The rocks are extremely variable, ranging from hard resistant chert and graywacke sandstone to weak, sheared and clayey melange. Soil cover on natural slopes is relatively continuous, except where resistant rock masses crop out at the surface or where the underlying rocks have been exposed in the headscarp of landslides. Therefore, erosion of bedrock materials on natural slopes is of minor consequence since the rocks which are exposed are hard and resistant to erosion.

The growth of protective vegetation plays an important part in preventing erosion on natural slopes and, in areas of sandy soil, extensive gullying may take place in a single year if the vegetation is stripped away.

Another form of erosion and sedimentation that can take place on natural slopes is saturation of relatively thick deposits of sandy colluvium during heavy rainfall and consequent rapid downslope movement of these materials as a debris flow. As shown during recent storms, these mud avalanches flow very rapidly and can do considerable damage to structures located at the base of the slopes.

When cut slopes are developed, the natural protective vegetation and soil cover is stripped away and more readily erodible materials are often exposed. When the highly sheared matrix materials of the Franciscan melange are exposed in a cut slope, the weak rock is fairly erodible and, over several years, a slope can become severely gullied if drainage ditches and planting are not employed. Hard blocks within the melange may work loose as surrounding material is washed away and tumble downslope. Soil materials exposed at the top of a cut slope are especially susceptible to erosion. Because of the variability of the materials involved, each cut slope developed must be considered individually, with adequate consideration given to geologic factors, design of drainage measures and planting. Fill slopes may also be readily susceptible to erosion if they are not well compacted and/or constructed of sandy materials. They also require adequate drainage and planting.

The sediment which originates on the hillsides is eventually washed down stream channels to the Bay. The tidal flats, where the streams formerly spread out and deposited these materials, are now largely developed and the sediment is confined to narrow channels. Because the gradients are low in these flat areas near the Bay, some of the suspended soils are deposited in the channels and periodic maintenance is necessary to prevent flooding.

TOPOGRAPHY AND GEOLOGY

The Seismic Safety Element Map shows those areas in Town which have topographic or geologic conditions which could prove hazardous to life and property. Included are areas where the slope exceeds 40%; slopes that are greater than 20 percent; areas which are susceptible to landsliding; areas of slope debris and ravine fill; areas where landslides have occurred and areas where ground failures and subsidence due to Bay Mud are likely to occur. Since the mapping of geologic hazards has been generalized, more thorough investigations should be conducted to determine possible dangers in areas subject to geologic hazard prior to any development.

SEISMIC. Based upon a review of all available geologic maps, there appears to be no active earthquake fault within the Town of Corte Madera and its planning area. However, since the Town is relatively close to known principal faults, earthquakes of high magnitude can be felt and cause damage in the area. Most earthquakes register less than 5 on the Richter Scale; shocks of this size generally cause little or no serious damage and are felt only near the epicenter. Earthquakes of a magnitude greater than 6 are relatively severe and may cause damage near the epicenter; those of a magnitude of 7 or more may cause widespread destruction at relatively great distances (i.e., up to 100 miles) from the epicenter. While long-time residents of Corte Madera may feel that the area is relatively free of earthquakes, it should be noted that only small earthquakes have occurred in recent years in other parts of the Bay Area. Very large earthquakes, such as the one which occurred in 1906, were felt strongly in Corte Madera.

Most of the known severe earthquakes in the Bay Area occurred during the nineteenth and early part of the twentieth century. However, there is much evidence to indicate that the lull in earthquake activity during the past half century is temporary and that resumed seismic activity on a similar scale to the nineteenth century is probable during the coming decades. A review of the sequence and effects of these past earthquakes included in the Technical Appendix, provides useful indications of what may reasonably be expected in the future. Unfortunately, there are no direct reports on damage incurred in Corte Madera as a result of major quakes, but assumptions can be made from information recorded in San Rafael and elsewhere in the Bay Area.

Even though an earthquake fault does not lie within an area, the site is still subject to several seismic hazards including shaking, secondary ground failure (including landslides and liquefaction), tsunami and seiche. Since there appears to be no active fault within Corte Madera, there is little possibility of future ground breaking (surface displacement) anywhere within the Town. Although ground rupture along active fault lines is perhaps the most widely publicized form of earthquake ground failure, secondary ground failures triggered by ground shaking are a more widespread and no less hazardous occurrence during earthquakes. Within the Town and its planning area, two basic types of secondary ground failures could occur during future earthquakes: landslides which would affect hillsides; and failure of saturated, loosely-constructed ground (liquefaction) which could occur within portions of the flat, former Bayland areas.

SHAKING. Whether or not local ground failures occur in the Corte Madera area, no part of the area will be free from the effects of shaking, which is potentially damaging to many types of structures. Older structures, especially those built before 1933 (when improved codes were adopted) and those built of unreinforced masonry, are especially susceptible and may be subject to collapse during earthquakes. Depending on the earthquake (e.g., its magnitude and epicentral location) and subsurface conditions present beneath various areas of the Town, shaking effects which can be reasonably expected to occur within the next few decades would vary from slight to intensive damage.

Ground failure in the form of lurching, cracking, formation of "sand boils", etc., is a significant possibility during major earthquakes within areas of filled ground overlying former Bay lands. The danger is especially great in areas where the ground is not flat, such as adjacent to ditches, sloughs and edges of fills.

LIQUEFACTION. Areas of loose or medium-dense, water-saturated, cohesionless materials which tend to subside and flow when subjected to earthquake vibrations are particularly susceptible to the dangers of tense and prolonged ground shaking, and this may result in liquefaction. As the material tends to compact, the water pressure in the soil increases and may reach the point where it becomes equal to the overburden pressure. At this point the soil loses its strength and liquefies transforming the subsurface into a mass of watery quicksand. Buildings located of this type of soil will sink and/or tilt and lighter materials, such as water and gas lines, will rise to the surface. Gas leaks may result and fires and/or explosions can ensue. Experience during past earthquakes shows that the effects of earthquake-induced failure of saturated ground areas can be devastating. Hence, this type of ground failure should be a major determinant in the planning of the use of areas exhibiting this seismic hazard.

LANDSLIDES. The most serious landslide risk during earthquakes occurs on ground which is marginally stable under normal conditions. Hillsides that contain existing older landslides are generally the most susceptible to failure during future earthquakes. Antecedent rainfall conditions are also an important factor, and if a future earthquake should occur after an extended wet period, the danger of sliding will be much greater than if the same quake occurs when the ground is dry. For purposes of this Seismic Safety Element, earthquake landslide risk is viewed as a geologic problem and is mapped as a high hazard area on the Seismic Safety Map; the earthquake is considered as the triggering event.

TSUNAMI. Tsunamis are long period ocean waves generated by disturbances of the ocean floor, such as fault offsets associated with earthquakes. Tsunamis may travel for thousands of miles causing damage in areas both close to and well away from the epicenter. Most tsunamis which have caused damage in California have been generated by distant quakes. Tsunami damage sustained along the open coast usually results from amplified high tides and, in some cases, from a series of discrete "tidal waves". The degree of damage is influenced by the orientation of the coast relative to the on-coming wave.

When a tsunami enters a bay or other partly enclosed body of water, however, its characteristics are modified. The effect in a body of water such as San Francisco Bay is somewhat analogous to water sloshing back and forth in its container after a disturbance. Tide gages within bays indicate an oscillation of the water level above and below the normal tide level for a given time interval. Unusually high water levels may not occur, but the range between

high and low water levels may be quite large, causing rapid currents and consequent damage. Tsunamis entering San Francisco Bay behave in this manner.

FIRE. Although fires can occur anywhere in the Town, they are of prime concern in the higher undeveloped lands. Due to the lack of rainfall during a large portion of the spring and summer months, fire becomes a severe hazard in the wooded lands of the Northridge. As well, other grassland and shrub covered lands have a high fire potential. Warm summer temperatures and afternoon winds substantially increase the fire danger in these hillside areas. This is further complicated by a lack of water and/or by inadequate water pressure levels in higher elevations and by narrow roads affording poor access or no roads at all. This condition is prevalent not only in the undeveloped areas, but also in the developed hillsides in the western portion of Town including the area known as Christmas Tree Hill.

Fire can also be a severe hazard induced by earthquake damage and, in this instance is much more difficult to predict. It is estimated that in the 1906 earthquake, only 20 percent of the total dollar damage to San Francisco was caused by earthquake with the remainder attributable to the aftermath of fire. The major fire fighting problem, pipe breaks in the city's water distribution system, was intensified by damage to or destruction of conduits from the main storage reservoirs. Since 1906, major improvements have been made in water distribution systems and damage should be of a substantially diminished scale in future earthquakes of similar magnitude. Likewise, in Corte Madera some disruption to water lines may occur, particularly in the low-lying areas subject to liquefaction hazards. Since gas lines in this area could also be affected, fire hazard becomes an important aspect in land use planning in these areas.

SPECIFIC AREA POLICIES

For purposes of the specific area policies, the Town of Corte Madera has been divided into two distinct portions: areas of Bay Mud and man-made fill which occupy over half of the Town's area within its corporate limits; and the hillsides which comprise the remainder of the Town as well as most of its planning area outside of its boundaries, primarily the Tiburon Peninsula Ridge. For these two major portions, the specific area policies are addressed to both the undeveloped and developed lands.

The general study of existing conditions presented in the preceding section indicates that geologic, topographic, seismic, fire and soil conditions within the Corte Madera planning area are a significant constraint to the future growth of the Town. Geotechnical conditions within the remaining undeveloped areas of Town are relatively poor from a standpoint of safe, economical construction. Based upon these findings, the specific area policies have been developed for the Town and are illustrated in the Seismic Safety Policy Map, Figure S2. Basically, the policies fall into three major categories:

1. High hazard areas where development shall be prohibited unless unequivocal proof of safety can be demonstrated. In the vacant hill areas this would include lands where slopes are greater than 40 percent or where there are large areas of melange, slope debris, ravine fill and where landslides have occurred. Even though some older slides may be partially stabilized, they are susceptible to renewed movement if their natural conditions of slope, drainage or moisture content are disturbed. Development in the vacant Bayshore areas should be prohibited in those areas of known tsunami danger, again except where full safety can be demonstrated.

In the undeveloped areas, the Seismic Safety Policy Map complements the Open Space and Conservation Policy Map, Figure OP3 and the Open Space and Conservation Element, available in the Community Services Department, with regard to the recommendation for prohibiting development where topographic and geologic conditions present significant danger to life and property.

2. Moderate hazard areas where development shall be conditionally permitted. In the undeveloped hill areas this would include lands where slopes range from 20 to 40 percent; areas on steep and undeveloped natural hillsides located near known landslides where the variability of rocks and other conditions could cause new or renewed landslides; areas of moderate erosion hazard and rapid run-off where development should be regulated as to siting, degree of cut slopes and plantings; and areas which are subject to high fire hazard due to vegetative cover, inadequate water supply and/or water pressure and inadequate road access. In the Bayshore areas, development shall be regulated in undeveloped areas underlain by Bay Mud where relatively great differential settlements can occur during a strong earthquake.
3. Developed areas underlain by Bay Mud where seismic regulations shall be reinforced to protect against dangers. Other regulations shall also be strengthened in all built-up portions of Town where there is a potential for severe to moderate hazards due to topography, geology, erosion, seismicity, foundation soil pressure limitations, shrink-swell capacity and fire. In-depth studies should be conducted to determine the extent of hazards in areas where severe conditions are expected.

The location of all of the above conditions for the three classifications have been derived from the Seismic Safety Element Map. It should also be noted that the Seismic Safety Map illustrates constraints on development on all lands in Town. Note that Figure S2 should be used in conjunction with Figure OP3 which are available in the Community Services Department.

AREAS OF BAY MUD AND MAN-MADE FILL. All of the lowland portions of Corte Madera, more than half of the Town, is apparently underlain by deposits of soft, younger Bay Mud. Development of this land normally requires the placement of fill over the Bay Mud which causes settlement or sometimes even failure of the underlying ground.

Recent Bay Mud is of a soft silty clay that has been deposited in San Francisco Bay during the last 10,000 years and either directly overlies Franciscan bedrock or rest upon older Bay Mud and sand, which, in turn, overlies the Franciscan rock. The younger Bay Mud is loosely consolidated and compressible to relatively great depths. Within Corte Madera, present information indicates that the thickness of the younger Bay Mud varies from a few feet to more than 100 feet. When fills are placed over thick Bay Mud deposits, relatively great settlements take place with the settlement going on for periods as long as 100 years, although most of the settlement takes place within the first few years. Where great differences in thickness of the mud exist over short lateral distances, differential settlement can be a problem. Extensive Bay fill projects designed to provide adequate support for residential or other structures present difficult technical problems. If, for example, the site is underlain by as much as 100 feet of young Bay Mud, then fill placed on top of the mud would settle significantly over a period of many decades. The total settlement would be quite large: a thickness of 10 feet of fill would eventually settle on the order of five to six feet.

The relatively uniform silty clay of the younger Bay Mud also has low permeability and there are layers and lenses of sand and shells that exist within the mud in many areas. The loosely consolidated sand layers may be susceptible to liquefaction during earthquake shaking. Therefore, because of the high probability of major settlements or differential settlements, and the high risk of earthquake shaking and liquefaction, all development proposed for areas underlain by Bay Mud should be stringently regulated and strict site preparation and construction standards imposed. The developer should have a structural engineer certify that the site preparation and the structure itself conforms to safety standards. The developer may be required to provide security to insure structural integrity of the development. All such projects should also be reviewed by the Town before approval is granted.

Methods are available to control the rate of settlement and otherwise minimize the effects on structures, utilities and other site developments, and many Bay fill projects which used these techniques have performed satisfactorily. Extensive investigations are necessary at the outset of projects proposed over Bay fill and public safety can be expected only if the entire project is carried out in accordance with a well conceived technical plan.

Even after placement of a satisfactory fill, special measures may be required for the foundation support of many types of buildings. Several techniques are employed in building foundations in the Bayshore areas.

Since gas and water lines can be severely damaged during a seismic episode, the design of underground utilities in areas of Bay Mud and man-made fill is an important consideration. Water and gas systems must be adequately valved in Bay fill areas or otherwise designed for rapid shutoff. They must be

accessible for emergency repairs to minimize the effects of possible pipe breakage. Provisions of an independent water supply system for fire protection (i.e., the use of Bay water) could be a desirable back-up system to protect those structures and inhabitants in the most vulnerable and already built-up portions.

Existing developments within the Bayshore areas of Corte Madera have generally been carried out on a project-by-project basis and problems of settlement are widespread. Differential settlements in the range of 6-18 inches or more have occurred in some areas, especially where new fill has been added to areas of older fill. Since differential settlement rather than total settlement causes most damage to utilities, roads and structures, it is evident that uncoordinated, patchwork filling may be more expensive in terms of long-term effects than a staged, coordinated effort requiring a somewhat higher initial investment.

Those portions of the low-lying areas closest to San Francisco Bay are also subject to the possible tidal wave inundation of tsunami which are often caused by distant earthquakes. Since it is possible to predict tsunami, there is sufficient time to evacuate residents of the developed low-lying areas. In the vacant areas, further development should be very carefully controlled.

HILLSIDES. The hillside areas of Corte Madera are generally steep with numerous landslides, especially east of U.S. 101. These existing landslide areas and many other portions of the undeveloped steep natural lands are in a metastable condition (i.e., there is only a slight margin of stability) and a heavy rainfall can cause further sliding. If an earthquake should occur after an extended period of rainfall - especially during a very wet winter such as in 1972-73, the slides and ensuing damage could be devastating. Even minor man-made changes in these areas, such as minor cut slopes, might cause renewed or even new landsliding in extensive portions of Corte Madera and its immediate surroundings.

Because of the variability of the rocks and other local conditions, it is unrealistic to recommend a uniform policy to govern the future of the hillside portion of the Town. Instead, it is necessary to make detailed investigations of each proposed building site. However, based upon known dangers of the specific geologic conditions, it is recommended that future development be very carefully controlled on lands containing geologic hazards. Generally, these are the areas which contain known landslides, and areas of melange slope debris, and ravine fill. Areas of the hillsides where further development shall be prohibited are those portions where the slopes are greater than 40 percent. Parts of the Northridge, west of U.S. 101, are also dangerous for most types of development because of the rapid run-off and the high to moderate erosion hazard of the Los Gatos-Maymen Soil Association.

Other portions of both the developed and undeveloped hillsides will require regulations if continued building occurs, especially in those areas where slopes are over 20 percent. The high fire danger of the Northridge and Christmas Tree Hill area will necessitate improved water and road conditions

prior to any further development approval. Additional portions of the Tiburon Peninsula Ridge, although not containing known geologic or topographic hazards necessitating building prohibition, are of the Laughlin-Parrish Soil Association which is characterized by rapid to medium runoff and a moderate erosion hazard. Development here could lead to life and property damage if site planning and development are not carefully controlled. Soils with moderate shrink-swell potential, such as portions of the Hugo-Josephine Soil Association, could cause roadway and structural damage if future development is permitted.

Therefore, zoning regulations which include consideration of soils, geologic, seismic, topographic and fire constraints should be adopted by the Town of Corte Madera, the County of Marin and other affected, adjacent communities. Since many of these areas also contain lands with important natural resource, scenic and archeological values, design controls for these portions could be incorporated within the zoning regulations.

EMERGENCY SERVICES. In conjunction with protecting the community from natural hazards, the California Government Code requires that the Public Safety Element contain features necessary for protection such as evacuation routes and peak load water supply requirements. The Marin County Office of Emergency Services has prepared such a plan for the County. This information is contained in the March 1973 "Town of Corte Madera Emergency Plan" and will be used in the Design of the Safety Element of the General Plan.

RECOMMENDED IMPLEMENTING APPROACHES

The Seismic Safety Policies call for development constraints in some of the undeveloped portions of the Bayshore areas, and on Tiburon Peninsula Ridge and Northridge properties because of potential hazards from soils, geology, earthquakes, topography and fire. Some of these same lands have been recommended for retention in permanent open space in the Open Space and Conservation Element because either they exhibit severe seismic, geologic, or topographic constraints and/or evidence significant open space values such as natural habitat, scenic and archeological resources and recreational potential. For these undeveloped areas designated for permanent open space, it is recommended they be publicly acquired in accordance with the provisions of the Open Space Acquisition Program of the Open Space and Conservation Element, as and when funding permits.

There may, however, be portions of these undeveloped areas which contain hazards which preclude any development. In addition, some of these lands may in fact be able to support development so long as stringent standards prohibit certain development practices and provide necessary requirements to insure the public safety. For these areas, it is recommended that regulation such as zoning be used.

Three major regulatory devices are recommended: Mandatory planned development; a land capacity ordinance and a natural habitat protection district. These three regulatory approaches are described in more detail in the Regulatory Methods section of the Open Space and Conservation Element.

RISK ZONING FOR BAY FILLS. Another method of regulating development in areas of Bay Mud and man-made fill would be the institution of various seismic risk zones, each containing engineering safety requirements, allowable land uses, and necessary site investigations prior to development. Land use for fills over the deep compressible soils would be so restricted as to either prohibit or, where appropriate, minimize population density unless the special precautions are followed. In high risk areas, developers would be required to have experienced, licensed structural engineers attest to the safety of foundations and structures and estimate the amount of anticipated settlement. Special design features would also be necessary for incorporation in the design of utility lines. Away from the Bay where the thickness of younger Bay Bud is less and the threat of liquefaction and the amount of settlement is minimized, requirements would be less stringent, but nevertheless would contain those regulations pertinent to the specific restrictive conditions imposed by the site.

Although changes in the existing Town zoning and building code requirements are not retroactive to include mandatory alterations to existing private structures, a review of both documents is called for to assure that existing regulations reflect current technology in regard to the safest construction of structures in hazard areas, especially where there is seismic risk. All new buildings in these areas and those to be remodeled or rehabilitated would be subject to the new regulations. However, all public buildings should be brought up to adequate safety standards if it is found they do not conform to the latest regulations.

**COMMUNITY
APPEARANCE
AND ENVIRONMENTAL
QUALITY**

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COMMUNITY APPEARANCE AND ENVIRONMENTAL QUALITY

PURPOSE

This section includes a consideration of scenic highways and noise, as mandated by state law, and sets forth policies to assure an attractive community and a healthy local environment.

Community appearance is an important component of the Corte Madera General Plan. All too often, plans are developed with no concern for the natural and man-made visual aspects of an area, and generally ignore the physical and visual effects of land use and transportation proposals. Corte Madera now enjoys a remarkable visual setting that must be preserved.

In addition to general policies concerning community appearance, this section provides recommendations for protecting the health and safety of residents through improving air, water and noise pollution conditions. Although legislation needed to improve current pollution conditions will be the responsibility of the state and federal governments, Corte Madera can contribute toward that improvement by establishing and implementing policies both to prevent further degradation of the environment and to lower some current pollution levels.

TOWN-WIDE POLICIES

Town-Wide policies respond to the foregoing general aims. These policies enumerate objectives to guide future public and private actions to maintain and improve the Town's appearance and environmental quality. It shall be the policy of the Town of Corte Madera:

1. To preserve the natural appearance of hills, ridge lines and other prominent or significant landforms, and to protect the Town's wooded character by preserving established vegetation;
2. To maintain the Town's relationship to San Francisco Bay by minimizing alteration of the shoreline, assuring public access, protecting and enhancing Bay views, retaining the visual and open appearance of existing marshlands and shoreline grasslands and prohibiting the filling of the Bay and marshlands;
3. To preserve scenic views from all major public areas;
4. To safeguard areas and sites of historical and archeological significance;
5. To maintain the residential scale of the Town through the control of height, materials, and building forms consistent with this image;
6. To minimize the intrusion of vehicular traffic and its associated visual impacts into residential areas and to promote the safety of residents;
7. To stage development at a rate that can be readily absorbed into the physical scale of the Town;
8. To assure that land use, structural design, signs, lighting and landscaping along scenic roadways are sensitive to their location;
9. To support efforts which promote higher air quality standards and to restrict air pollutant sources within the town;
10. To promote a decrease in vehicle induced noise levels by reducing the dependency on the private automobile;
11. To limit development on land with erodable soils to a level which will not result in further degradation of water quality.

EXISTING CONDITIONS

The considerable scenic attributes of Corte Madera are readily apparent to the resident and visitor, but some problems of community appearance and environmental quality do exist.

COMMUNITY APPEARANCE. Because Corte Madera's geographic location combines water, hills and scenic vistas, the natural setting is a dominant element in the visual image of the Town. The setting, therefore, plays an important role in determining development location and in selecting major open spaces necessary to retain the natural character of the Town.

RIDGETOPS. The ridges and hills separating Corte Madera from adjacent communities support many species of wildlife and plants and provide a natural greenbelt. Within Marin County, this greenbelt contributes to each community's individual identity by providing distinct town boundaries, which lessen the impact of highly urbanized areas. However, large portions of the ridge landscape is in private ownership and much lies in unincorporated areas. Many of these areas have been proposed for residential development even though large portions of the properties exhibit geological conditions which may be hazardous to development.

SHORELINE AREAS. Although a portion of the shoreline and adjacent lands are still in their natural state, little has been done to enhance these areas, particularly in regard to public access. Views from these areas are impressive, and the variety of aquatic vegetation and wildlife offer a sharp contrast to the grasslands and trees of higher elevations. Some of the marshlands, including the Heerdt Marsh, a small portion of the Muzzi Property, and the Triangular Marsh look much the same today as they did a hundred years ago. But in the past few years, a series of marina and marine-related commercial developments have been proposed for these areas. Although the San Francisco Bay Conservation and Development Commission has stated a policy of retaining these marshlands, and as such, has denied development applications, existing zoning and ownership are not entirely compatible with preservation aims.

VEGETATION. The initial impression of Corte Madera projects two distinct but dissimilar appearances: that of the heavily wooded vegetation in the west and the open marshes, grasslands, and scarred hills in the east. Tree cover throughout the western hills and ravines is abundant with redwood, oak, eucalyptus and heavy underbrush. Planted trees and shrubs are also prevalent along the residential streets in lower elevations, especially in neighborhoods west of the freeway. The cut slopes east of the freeway support few trees, and the few that are present have been planted. Tree planting along the streets is sparse in the newer residential sections east of U.S. 101, although this becomes apparent only by driving through the area. The sparseness of vegetation is further emphasized by the grassland expanses on the Tiburon Peninsula Ridge and the abundance of aquatic grasses in the open shoreline areas. Both of these provide great contrast from the hills and ridges in the western portion of the Town. Also, landscaping is sparse along the freeway and some of the other more heavily traveled roadways. Planting is necessary to complement the natural visual setting and to buffer much of the non-residential development located along these roads.

VIEWS. From the Corte Madera Ridge, glimpses are available of the City of San Francisco, the Bay and Bridges, East Bay Hills, the Shoreline and Marshes, the urbanized lowlands of Corte Madera and Larkspur, and the heavily wooded hills of the open space separating Corte Madera and Mill Valley. Views along the major transportation routes, though less expansive, also offer great variety in topography and texture. Westbound along Tamalpais Drive, Mt. Tamalpais and the heavily vegetated western hills of Corte Madera with its sprinkling of houses partially hidden by trees, imparts the natural and small-town scale that is characteristic of Corte Madera. However, increases in home construction and destruction of natural plantings threaten this important quality.

Eastbound along Tamalpais Drive, the East Bay hills offer a completely different perspective and scale and emphasize Corte Madera's unique setting in the region. However, this vista is marred to a large extent by the foreground comprising mainly of the severely cut slopes of the lower portions of the Tiburon Peninsula Ridge where residential development has occurred. These slopes were cut with little regard for the natural topography, erosion, plant cover and visual image.

Other roadways also provide variations of view and topography, including Corte Madera Avenue, Paradise Drive and U.S. 101. However, development and lack of sufficient buffering, particularly along U.S. 101, have detracted from the views and the natural setting. Industrial and commercial development along portions of the freeway are not sensitive to the natural surrounding in many instances, and the design of several of the service facilities present a run-down appearance.

ENVIRONMENTAL QUALITY

The problems associated with air, noise and water pollution cannot be isolated in terms of Corte Madera since the issues are regional in scope. However, the prevalence of pollution does have an effect on the health of residents and the quality of life in Corte Madera and, as such, becomes an important factor in the Corte Madera General Plan.

AIR QUALITY. The automobile is the major source of air pollution. Cars emit carbon monoxide, hydrocarbons, lead and other chemicals and it has been shown that pollutant levels and trends closely follow patterns of traffic volume. In general, levels are highest along the major routes of travel such as U.S. 101 and Sir Francis Drake Boulevard. Other sources of pollution

include residential and commercial heating systems, and dust pollution which is an additional annoyance created largely by highway and building construction.

In the June 1972 report, "Air Quality and Growth in Marin County", the Bay Area Air Pollution Control District (BAAPCD) assessed the air quality in the three Marin County air basins (Las Gallinas, San Rafael and Ross-Corte Madera basins). The BAAPCD projected the impacts of growth in the region and concluded that the current contaminant levels have remained low. Except for oxidents, levels rarely exceeded the air quality standards set by both the state and federal governments (see Appendix Table CEQ1). This occurs despite high pollution potential in the Bay region caused by the surrounding elevated terrain, the frequent low wind speeds, and the common formation of low-level air inversions which can all cause an increase in contaminant accumulation. The existence of low levels of air pollution in an area of relatively great pollution potential is due to a low rate of pollutant emissions and a favorable geographic position generally upwind of major pollutant source regions in the Bay Area.

NOISE. Most of the ambient noise environment in Corte Madera is caused by vehicular traffic on U.S. 101, with some additional noise created locally by traffic on arterials such as Tamalpais Drive, Tamal Vista Boulevard, Madera Boulevard, San Clemente Drive and Paradise Drive. However, the noise levels from the arterials do not have a significant impact on adjacent land uses, particularly during the night-time hours when traffic volumes are low. In contrast, U.S. 101 night-time noise levels, while lower than day-time levels are still relatively high because of the 55 mph speed limit and the frequency of truck traffic on the freeway. Noise levels above 65 to 70 dBA will interfere with normal conversation and a noise level between 60 and 70 dBA can disrupt sleep.

Section 65302 of the California Government Code specifies that a Noise Element must be prepared as part of the general plan and must include a map showing the contour of present and projected noise levels associated with all existing and proposed major transportation elements. The agency responsible for the transportation facility is required to provide the necessary information. Therefore, since U.S. 101 is the major noise source in Corte Madera, the data on current levels and the anticipated levels following projected freeway improvements. Estimates of the impact of future transit is the responsibility of the Golden Gate Bridge District. Both data packages are now available and will be used to form the basis for the noise element.

WATER QUALITY. Pollution in San Francisco Bay generally results from the discharge of municipal, industrial and agricultural wastes. Damage is done by poisonous substances, residues that cause organic growth (algae), and by sewage that consumes oxygen in the water as it disintegrates. The resulting pollution can destroy both marine life and marine habitats in the water and along the shoreline as well as cause obnoxious odors and unsightly conditions.

In Corte Madera, the predominant source contributing to water pollution is the quality of urban run-off. Dust, litter, animal feces, lubricating oils, pesticides and other waste materials are generally found in urban run-off. Measured in terms of sewage strength, a city of 5,000 to 10,000 inhabitants has an average contribution of 1.0 pound of BOD (biological oxygen demand) per mile of street per day.

The role of the marshes is significant not only in reducing the potential BOD loading to San Francisco Bay receiving waters, but also by serving as a trap for other undesirable storm water constituents. Suspended sediment, toxic heavy metals and plant nutrients may be detained permanently in the marsh ponding areas.

SPECIFIC POLICIES AND DESIGN CRITERIA

Two maps have been prepared to illustrate the Community Appearance and Environmental Quality policies. The first is the Natural Features Map, Figure CEQ1, which denotes ridgetops, shoreline areas and significant vegetation which should be carefully considered for protection in their natural state. Attention to these areas is necessary because of their contribution to the appearance of Corte Madera or because they contain significant open space values or historic or archeologic significance. These open space values were initially identified in the Open Space Values Map, Figure OP1 in the Open Space and Conservation Element. In addition, Figure CEQ1 also identifies areas where special programs to intensify street landscaping should be applied.

The second map, Design Review Areas, Figure CEQ2, identifies residential and non-residential districts where special design principles and standards are to be applied and all development proposals are to be reviewed to determine compliance with criteria. This map also designates design corridors where additional review is required if development occurs along scenic roadways and highways, or along the urbanized portion of the pedestrian/bicycle route. (Maps on file in the Community Services Department.)

NATURAL FEATURES. The Open Space and Conservation Element speaks to the preservation of lands which: exhibit important natural habitat attributes; contain scenic resources, including lands which are visually important to the local and regional setting of Corte Madera; are themselves locations from which vistas of the hills, ridges, San Francisco Bay or East Bay are available; and

which are important archeological sites, such as in the vicinity of Ring Mountain on the Tiburon Peninsula Ridge. In addition, lands with recreational resources are also cited.

RIDGETOPS. Based on the above, it shall be the policy of Corte Madera to retain the ridgetops and substantial slope areas where possible in their natural state in order to preserve the wooded vegetation, significant habitats and grasslands, recreational potential, view locations and natural greenbelt separation between communities. Further, if the remainder of the ridge and hill areas cannot be publicly acquired - specifically the Nichelini Property and the remainder of the developable portions of the Tiburon Peninsula Ridge - and if development is permitted below the ridgetop areas, regulations should be established by the Town to unequivocally insure that the dominant natural character and attributes of the area remain intact. Resolution No. 1323, A Resolution Relative to Preservation of Ridge Tops as Open Space, was passed by the Town Council of Corte Madera on January 3, 1972. (See Appendix)

SHORELINE AREAS. It shall be the policy of Corte Madera to take all lawful steps toward retaining the remaining unfilled shoreline areas and marshes in their natural state and prohibit the further filling of San Francisco Bay. These areas are important for: maintaining wildlife, some of which are endangered; preserving aquatic plant life; supporting marine life; combating water pollution; and preserving scenic water and East Bay hill views. The area should be designated primarily for natural habitat preserves and parks. Development permitted near these shoreline areas should be of a design that is sensitive to the unique natural setting and should be sited in a way to minimize the blockage of views.

VEGETATION AND STREET TREE PLANTING. The importance of the natural vegetation to the appearance of Corte Madera necessitates that the Town enforce a policy to retain vegetated areas in their natural state. This can be accomplished by prohibiting the removal of mature trees unless specific approval is granted by the Planning Commission. Programs should also be implemented to replant wooded and grassland areas which have been cleared of natural vegetation to allow development and to intensify the street tree planting program in the newer residential areas east of the freeway.

DESIGN REVIEW AREAS

Design Review Map, CEQ2, shows the mapping of Corte Madera into separate areas within which specific design criteria appropriate to that area should be developed. The primary aim should be to insure a consistency in the maintenance and development of a specific area which responds to either the established or potential character of a district. It should be the function of the Town's design review process to insure that new development observes the basic rules established for each of these areas.

DESIGN CORRIDORS. As recommended in the Circulation Element, Paradise Drive, Tamalpais Drive, San Clemente Drive and Corte Madera Avenue should be designated as local scenic roadways. These four roadways are the Town's major arterial streets, carrying the heaviest local traffic. In addition to the local scenic roadways, U.S. 101 should be designated as a scenic highway and become a part of the California scenic highway system.

Special design criteria should be established for each of these corridors once they have been designated as scenic roadways or highway. Except for U.S. 101, criteria should specify that existing road widths be maintained where possible and that speed limits be kept low so that routes will be feasible for leisure driving. Standards should be developed dealing with adjacent land uses, protection of views from the route, landscaping, lighting and signing.

In addition to the scenic roadways and highway, design corridors should also be established for the pedestrian/bicycle route for those portions which are located in the urbanized sections of Town. In particular, this relates to development and landscaping of areas adjacent to the railroad right-of-way in the western portion of Town, along Paradise Drive which also coincides with the scenic roadway and the proposed pedestrian connection over the free-way.

DESIGN DISTRICTS. The Town's existing residential neighborhoods and commercial districts each have their own character. Future areas designated for development should be designed in a manner to enhance the natural setting and to complement adjacent land uses and public areas. For this reason, the Town has been divided into a series of design districts to denote the boundaries of the residential neighborhoods and commercial districts. All future development or other public and private improvements should be subject to review to insure a continuity and compatibility of design within each district.

Residential neighborhoods also differ from one another throughout Corte Madera. The contrast is greatest between those east and west of the freeway, but differences can also be noticed between the neighborhoods in the hill areas and those on the flatter lands in the west. Although specific requirements will differ in respect to landscaping, setback, building height and materials from one district to another, the basic aims will be the same. Neighborhoods should be protected from the encroachment of incompatible new development. This will be particularly true in the older areas where a specific character should be retained. Other considerations include the rehabilitation of older homes, the maintenance of a circulation system that directs traffic around rather than through neighborhoods, the preservation of all mature trees, a program to encourage building upkeep, the compatibility of structural additions to the surrounding buildings and the overall environment, and the establishment of mini-parks where possible.

PUBLIC AREAS. A large portion of the Town is publicly owned and the local government has the responsibility of designing and maintaining these areas so they will enhance the appearance of the community. In Corte Madera these public areas, including parks, roadways and schools, comprise at least 40% of the total land area within the Town. As such, the Town should devote special attention to the continued improvement, design, and maintenance of these areas. This includes: establishing specific design criteria and standards for street lighting, roadway design, street tree planting, street signing, pathways and other special details which affect vehicular and pedestrian trafficways. These criteria and standards should help reinforce the small-town scale, particularly along scenic roadways. In addition, they should assist in reinforcing the identity and function of each of the design districts identified in figure CEQ2.

AIR QUALITY. Since most air pollution is attributable to automobile emissions, the Town of Corte Madera should support all feasible programs to institute a rapid transit system in Marin County that will be adaptable for most trip purposes in order to reduce resident dependency on the private automobile. Any program for rapid transit must be countywide in scope and include inter-county as well as intra-county service so that transit will be used for the home-to-work trip as well as for trips to shopping, recreational facilities, schools and other non-work destinations. In conjunction with rapid transit, Corte Madera should promote intra-Town service to connect residents with major public Town services and shopping. The system should be planned to eventually provide feeder service to a rapid transit system. The Town should also begin developing a complete bicycle trail system. Transit and bicycle policies and programs are more fully discussed in the Circulation Element.

In addition to transit, proximity of land uses to one another can do much to reduce dependency on the private automobile. In this regard, the section on Community Services and Commercial Facilities provides for the retention of existing neighborhood shopping areas that are within a reasonable walking distance from most homes. Further, this section recommends an increase in employment opportunities in the Town by developing additional retail/commercial, office/administrative and light industrial development in selected areas where they will not interfere with the residential quality of the Town.

NOISE ABATEMENT AND LAND USE COMPATIBILITY. Standards have been developed by the U.S. Department of Housing and Urban Development and the Highway Research Board for the maximum noise levels that will be compatible with various types of land uses. Table CEQ3 indicates the design criteria established by the Highway Research Board in 1971; H.U.D. standards are slightly more lenient. The Town of Corte Madera should adopt a series of noise/land/use compatibility standards and should use these criteria as a guide for determining the acceptability of a specific land use near the freeway or near any disturbing noise source. Special design measures such as earth berms, landscaping, accoustical building materials, solid walls facing the noise source, etc., can be employed to reduce the inside noise for land uses which do not require outdoor facilities and thus increase their acceptability for locating near the noise source. Other land uses such as residences, schools, and parks rely on their outdoor spaces. In these cases, the noise control measures cited would not significantly lessen the noise disturbance problems.

Construction of buildings and roadways also contributes to the noise level. The Town should set standards to control the amount of noise permitted by construction.

TABLE CEQ3: RECOMMENDED NOISE DESIGN CRITERIA

LAND USE		L ₅₀ (dBA)	
		Day	Night
Residences	inside	45	40
Residences	outside	50	45
Schools	inside	40	40
Schools	outside	55	--
Hospitals	inside	40	35
convalescent homes	outside	50	45
Offices	inside	50	50
Theaters	inside	40	40
Hotels, motels	inside	50	45

L₅₀ (dBA) is the average noise level generally caused by passenger cars (i.e., the noise level occuring 50 percent of the time.

Source: Highway Research Board, "Highway Noise: A Design Guide for Highway Engineers", National Cooperative Highway Research Program Report 117, 1971.

WATER QUALITY. Two major policies should be instituted by Corte Madera to prevent further degradation of the water quality in San Francisco Bay. The first should be to control development on lands with erodable soils. Since the hill areas subject to erosion have not been well mapped, further investigation will be necessary to determine which areas should be included. Where the cutting of slopes does occur, proper restorative measures, such as the planting of compatible vegetative cover, should be employed. The second policy should be to protect the remaining marshes and mudflats in their natural condition, to retain the remaining water volume and surface area of the Bay by prohibiting any future filling, and to maintain the fresh water inflow into the Bay.

RECOMMENDED IMPLEMENTING APPROACHES

Several implementation mechanisms, already discussed in the Open Space and Conservation Element, serve to promote the objectives identified in this section. Specifically, the revision to the planned development procedures and the establishment of a mandatory Planned Development District (PD) provide a means to implement a number of this section's policies. PD provisions should contain clear requirements that the proposed development be consistent with the provisions cited in all elements of the Corte Madera General Plan. Thus, the Plan itself becomes the basis for judging the acceptability of a development application.

Other objectives of this section, however, cannot be carried out by application of the PD procedures and require either modification of other existing Town regulations or the addition of new regulations and procedures. Some of these major implementing approaches are identified below.

DESIGN REVIEW ORDINANCE. The Town's present design review procedures should be thoroughly revised so that design review takes place during the initial planning and design stages and can be instrumental in affecting the outcome of a project. At present, design review occurs after the applicant has nearly completed his final design and, consequently, the review process is devoted almost entirely to minor architectural details rather than to the major considerations of siting, relationship to adjoining areas or features, building massing and scale, height, and consistency of building and landscape materials.

The Town should begin the process of preparing and adopting explicit statements of community design objectives for the various design districts illustrated on CEQ2 and then use these as the basis for the design review procedures. This approach has two distinct advantages. First, it provides the applicant with a clear statement of required conditions before most design work is initiated and, second, it insures a sound basis for design review.

DESIGN CORRIDORS. Development within design corridors will be subject to more stringent criteria and must be compatible with both the community design objectives of the district in which it is located, and with the scenic attributes of the roadway, highway or pedestrian/bicycle trail. Generally, the design corridor should extend 300 feet in both directions of the right-of-way, although exceptions in specific locations will be left to the discretion of the Town. Some of the criteria which should be considered are:

1. Building heights and setbacks should vary depending upon location, views and scenic factors.
2. Elimination of unsightly uses such as storage yards, parking lots, etc., unless they are adequately screened from public view by means of attractive fences and landscaping.
3. Control of signs, with controls based on objectives for a specific corridor or district, to limit the size, height, number, and type necessary for identification of the premises. Any signs which block scenic views should be prohibited and no billboards should be permitted.
4. Insofar as practicable, all new utilities should be underground, including water storage facilities, and existing overhead lines within design corridors should be given undergrounding priority by the Town. Consideration for top priorities should be given to those areas where citizens express a willingness to participate financially.
5. Grading or earthmoving operations should be done with minimum ground disturbance and result in naturalistic forms. Vegetative cover native to the area and other screening devices should be employed to cover ground scars and blend with the natural landscape.
6. Existing trees and other plant materials of significant value should be preserved.

SIGN ORDINANCE. The Corte Madera Zoning Ordinance contains provisions regulating the size of signs for commercial development, prohibits flashing and moving signs, and requires review for all permanent signs. However, the ordinance is uniform for a zoning district classification and does not take into consideration the actual type of area and setting in which it is placed.

The sign ordinance should be amended to conform with the new design districts. These amendments should clearly recognize that type, siting and size of signs can vary according to the function of the area, the manner in which the primary sign viewer experiences the sign (e.g., as a motorist or pedestrian), and the area's relation to other districts or features.

HERITAGE TREE ORDINANCE. Since the Town's setting depends so much on the forested appearances of its hillsides as well as the established landscaping in the older residential areas, provision should be made to protect these trees. The Town should establish a Heritage Tree Ordinance which would provide the means to identify and protect older specimens, as well as to forbid the removal of any tree over a certain height and width. Following identification, these trees cannot be removed except under special approval by the Town. The ordinance should contain provisions which would govern these exemptions so that decisions are not made arbitrarily.

Although not part of the ordinance, another program associated with tree planting is the private forestation of the residential streets in east Corte Madera. The homeowner associations in the area should be responsible for managing the project and should choose a variety of hardy, low-maintenance trees for the neighborhoods and should limit the number of species to about six varieties in order to retain neighborhood continuity. Individual homeowners would pay for the trees and planting, but the Town should be responsible for the tree maintenance, particularly pruning.

CAPITAL IMPROVEMENT MANUAL. The Town's own capital improvement program can provide an influential means of shaping and enhancing the community's environment, particularly in public areas. It is proposed that the Town devise and adopt common standards and incorporate them in a comprehensive manual for such public improvements as roadways, street lighting, street signing, street furniture (including bus shelters), pathways and street trees. The intent should be to promote a high standard of design which will enhance public and private areas. This effort should be thoroughly coordinated with the Town's park plans, the various school district plans for design and improvement of school sites and facilities, the transit district plans, and with plans of other governmental bodies responsible for public improvements.

CHAPTER 3

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TABLE I-1: POPULATION FOR CORTE MADERA AND MARIN COUNTY (1970)

Age	CORTE MADERA				MARIN COUNTY			
	West of Freeway		East of Freeway		Total		Persons	Percent
	Persons	Percent	Persons	Percent	Persons	Percent		
Below 5	527		195		722	8.0	15,497	7.5
5 - 14	1,173		576		1,749	19.3	39,632	19.2
15 - 24	899		301		1,200	13.2	31,864	15.5
25 - 34	934		370		1,304	14.3	31,792	15.4
35 - 44	973		405		1,378	15.2	28,757	14.0
45 - 54	936		334		1,270	14.0	25,326	12.8
55 - 64	643		180		823	9.0	16,986	8.2
65 and above	516		120		636	7.0	15,184	7.4
TOTAL	6,601	72.7	2,481	27.3	9,082		206,038	

TABLE 1-2: INCOME CHARACTERISTICS OF FAMILY HOUSEHOLDS FOR CORTE MADERA, MARIN COUNTY AND SAN FRANCISCO-OAKLAND SMSA (1969)

Income Range	CORTE MADERA			MARIN COUNTY	SAN FRANCISCO-OAKLAND SMSA*
	West Number of Households	East	Total Percent	Percent	Percent
below \$4,000	105	36	5.6	6.9	10.3
\$ 4,000 - \$ 6,999	165	23	8.5	9.0	11.6
\$ 7,000 - \$ 9,999	224	64	11.5	12.9	16.5
\$10,000 - \$14,999	516	183	27.9	27.1	29.4
\$15,000 - \$24,999	676	251	36.9	30.4	24.5
\$25,000 - \$49,999	138	84	8.8	11.7	6.5
above \$50,000	10	11	0.8	2.0	1.2
Median Income	\$14,031	\$15,797	\$14,100	\$13,935	\$11,802

* Includes Marin, Alameda, San Francisco, San Mateo and Contra Costa Counties

TABLE I-3: INCOME CHARACTERISTIC OF FAMILY HOUSEHOLDS BY COUNTY
IN THE SAN FRANCISCO-OAKLAND SMSA (1969)

COUNTY	MEDIAN INCOME
Marin	\$13,935
Alameda	\$11,133
Contra Costa	\$12,423
San Francisco	\$10,503
San Mateo	\$13,222
 TOTAL SMSA	 \$11,802
 CORTE MADERA	 \$14,100

TABLE I-4: OCCUPATIONS OF CORTE MADERA CIVILIAN LABOR FORCE (1970)

INDUSTRY	PERSONS	PERCENT
Construction	211	5.2
Manufacturing	378	9.4
Transportation and Communication	348	8.6
Wholesale and Retail	886	22.0
Finance, Insurance and Real Estate	425	10.5
Business and Repair Service	228	5.7
Personal Services	127	3.1
Health and Education Services	516	12.8
Other Professional and Related Services	322	8.0
Public Administration	270	6.7
Other Industries	88	2.2
Unemployed	232	5.8
TOTAL CIVILIAN LABOR FORCE	4,031	100.0

TABLE OP3: LOCAL PRIORITY OF OPEN SPACES FOR SITES
REQUIRING PUBLIC ACQUISITION

SITE	FACTORS				
	Composite Rank	Local Serving	Reliance on Local Funds for Acquisition	Major Benefit Dependent on Acquisition	Vulnerability to Development
Site E of Triangular Marsh	16	4	4	4	4
Site West of All Faiths Church	16	4	4	4	4
Muzzi Filled Lands	13	3	3*	4	3
Heerdts Filled Lands	13	3	3*	4	3
Corte Madera Creek Site	13	3	4	3	3
Menke Park	13	4	3	4	2
Koch Site	12	3	4	2	3
Tiburon Ridge	11	2	2*	3	4
Northridge	11	2	2*	3	4
Railroad ROW	11	2	2	4	3
Upper Hidden Valley	10	1	2	3	4
Muzzi Marshlands	8	1	2	4	1
Triangular Marsh	8	1	2	4	1
Heerdts Marshlands	7	1	1	4	1

Factor Scale:

- 4. Very High
- 3. High
- 2. Moderate
- 1. Low

* Assumes county-wide responsibility with local contributions.

TABLE H2: HOUSING PRIORITY LIST

PRIORITY NUMBER	SITE
1	Tamal Vista County Site
2	Madera del Presidio: Townhouse area
3	Site adjacent to All Faiths Church
4*	Koch Site
5	Uplands II
6	Madera del Presidio: Meadow and Bowl area
7	Quarry
8	Madera del Presidio: Lower ridge
9	Nichelini Property
10	Tiburon Peninsula Ridge

* This site should not be considered for residential development until such time as adequate surveys indicate that housing would be compatible with the noise levels produced along U.S. 101. However, it is included in this table to show that if housing is appropriate, the site should have a high development priority.

TABLE H3: HOUSING CHARACTERISTICS FOR CORTE MADERA, MARIN COUNTY AND SAN FRANCISCO-OAKLAND SMSA (1970)

HOUSING CHARACTERISTICS	WEST OF	EAST OF	TOTAL CORTE MADERA		MARIN COUNTY		SAN FRANCISCO-OAKLAND SMSA*	
	FREEWAY	FREEWAY	Number	Percent	Number	Percent	Number	Percent
<u>Type</u>								
Single-family detached	1,785	651	2,436	75.5	52,340	73.5	667,109	59.1
Two units	67	0	67	2.1	4,068	5.7	81,666	7.2
Three or more units	571	150	720	22.4	14,298	20.0	380,492	33.6
Vacant, seasonal	0	0	0	0	540	0.8	972	0.1
TOTAL HOUSING UNITS	2,423	801	3,224	100.0	71,241	100.0	1,130,239	100.0
<u>Ownership</u>								
Owner-occupied units	1,503	551	2,054	63.7	41,154	57.8	560,749	49.6
Renter-occupied units	836	217	1,053	32.7	26,452	37.1	525,103	46.5
Vacant, year round	84	33	117	3.6	3,095	4.3	43,415	3.8
Vacant, seasonal	0	0	0	0	540	0.8	972	0.1
<u>Year Built (excluding vacant, seasonal)</u>								
Pre - 1950	716	104	820	25.4	23,958	33.9	596,211	52.7
1950 - 1964	1,573	382	1,955	60.7	36,325	51.4	410,185	36.3
1965 - 1970	134	315	449	13.9	10,419	14.7	123,843	11.0
<u>Value of Owner-Occupied Units</u>								
Less than \$15,000	17	10	27	1.3	851	2.1	57,780	5.4
\$15,000 - \$24,999	253	27	280	13.6	7,715	18.7	216,780	38.6
\$25,000 - \$34,999	832	213	1,045	50.9	13,559	32.9	178,106	31.8
\$35,000 - \$49,999	388	225	613	29.8	11,517	28.0	89,526	16.0
\$50,000 or more	81	8	89	4.4	7,512	18.3	45,916	8.2
Median value	\$31,200	\$34,600	\$33,000		\$33,900		\$26,000	
Median rent	\$ 161	\$ 271	\$ 178		\$ 161		\$ 130	
<u>Persons per Housing Unit</u>								
1 person	414	70	484	15.5	11,991	17.7	262,249	24.2
2 - 3 persons	1,229	379	1,608	51.8	33,088	48.9	505,023	46.5
4 - 5 persons	586	264	850	27.4	17,784	26.4	239,097	22.0
5 or more persons	110	55	165	5.3	4,743	7.0	79,483	7.3
Average number of persons/unit	2.82	3.23	2.92		3.05		2.86	
<u>Persons/Room/Housing Unit</u>								
1.00 persons or less	2,269	743	3,012	97.0	65,177	96.4	1,019,641	94.0
1.01 - 1.50 persons	61	24	85	2.7	1,886	2.8	47,102	4.3
1.51 persons or more	9	1	10	0.3	543	0.8	19,109	1.7

* Includes Marin, Alameda, San Francisco, San Mateo and Contra Costa Counties.

FIGURE S3: DEPTH-FREQUENCY CURVES OF STORM PRECIPITATION FOR DURATIONS OF 30 MINUTES TO 12 HOURS FOR CORTE MADERA (MEAN ANNUAL PRECIPITATION OF 38 INCHES)

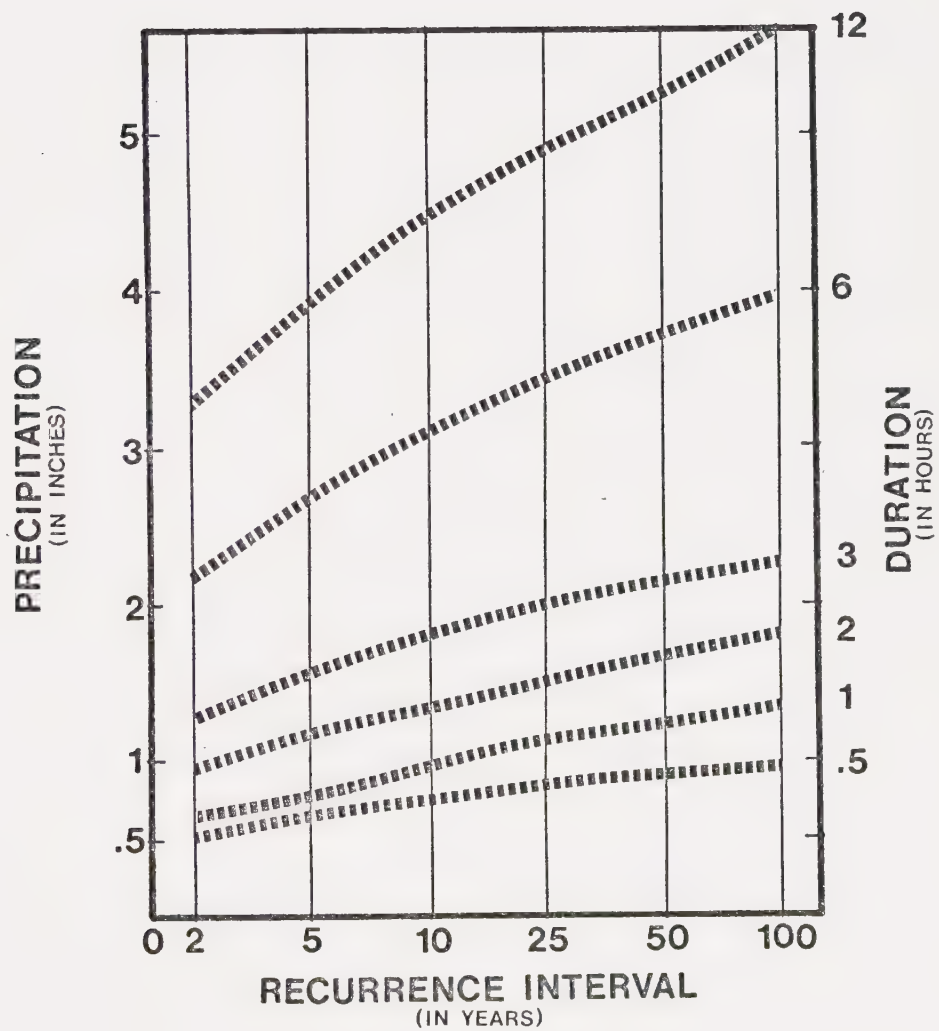


FIGURE S4: DEPTH FREQUENCY CURVES OF STORM PRECIPITATION FOR DURATIONS 1 TO 60 DAYS FOR CORTE MADERA (MEAN ANNUAL PRECIPITATION OF 38 INCHES)

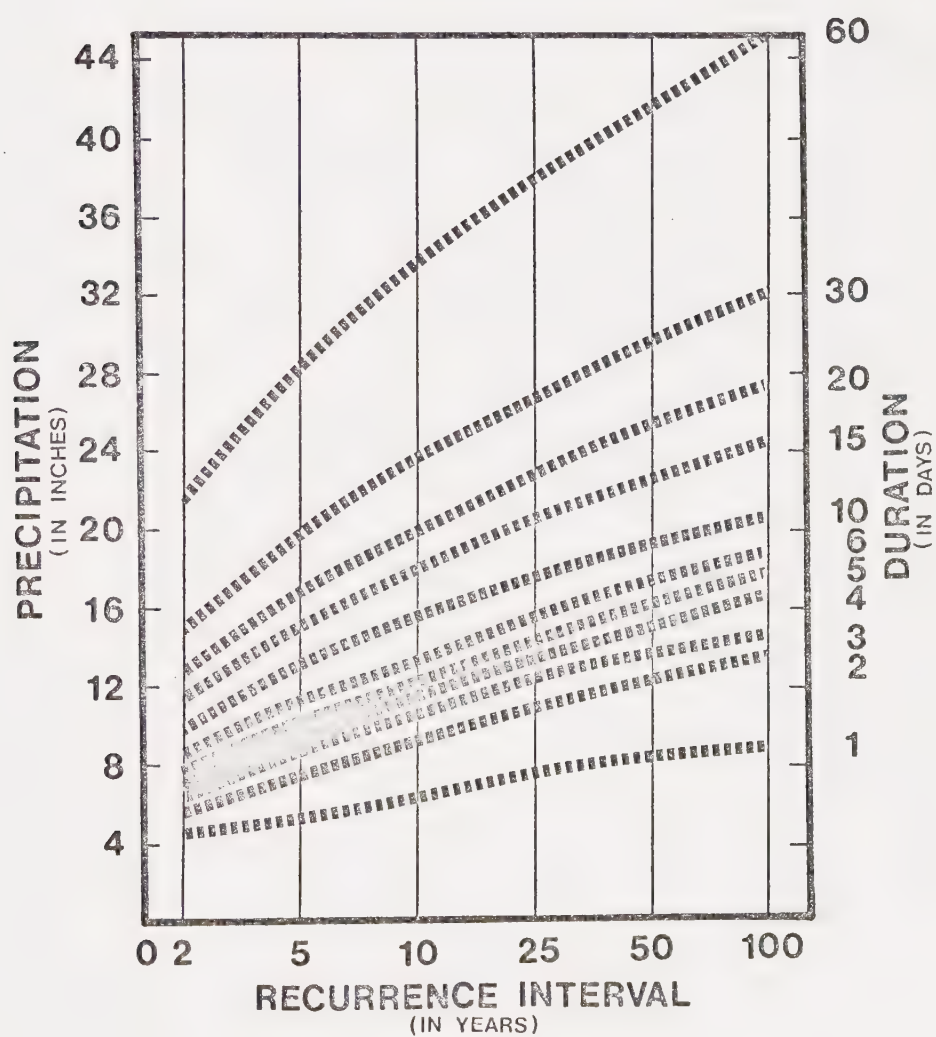


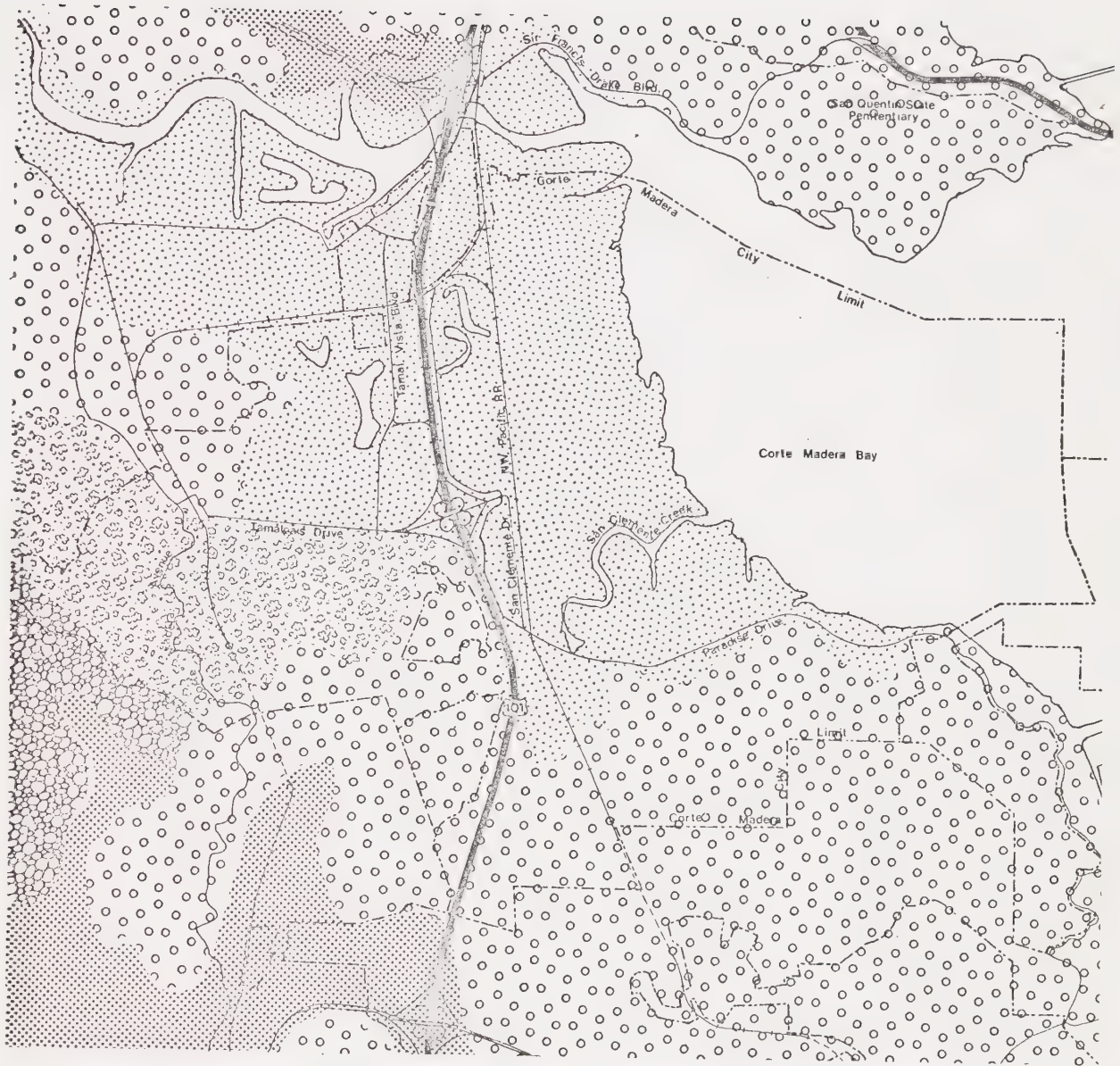
TABLE S1: SOILS CHARACTERISTICS IN THE CORTE MADERA PLANNING AREA

Name	Natural Drainage	Subsoil Permeability	Runoff	Erosion Hazard	AWC ¹ (inches)	Fertility	Foundation Soil Pressure Limitations ²	Shrink-Swell Potential ³
Tidal Flats	very poor	slow	very slow	slight	4 to 6	very slow	severe	shrink: high swell: low
Laughlin-Parrish Association	good to moderately good	moderate to moderately slow	rapid to medium	moderate	2 to 7.5	moderate	slight to moderate	low
Hugo-Josephine Association	good	variable: slow to rapid	medium	moderate to slight	4.5 to 8	moderate to moderately high	slight to moderate	low to moderate
Los Gatos-Maymen Association	good	moderate to moderately slow	rapid	high to moderate	1.5 to 6.5	very low	slight	low

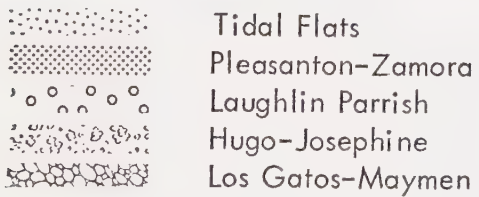
1. Available Water-holding Capacity

2. The ability of soils to withstand pressure imposed on them by foundations. Allowable pressure is for a foundation 1 foot in width at a minimum depth of 1 foot below adjacent virgin ground; the surface foot of soil is not considered in rating the soil. Degree of limitation: slight = more than 2,000 pounds; moderate = 1,000 to 2,000 pounds; severe = less than 1,000 pounds.

3. Shrink-swell behavior is that quality of the soil that determines its volume change with change in moisture content. Volume change is influenced by the kind and amount of clay in the soil.



**FIGURE S-5
SOIL TYPES**



LARGE EARTHQUAKES IN THE NINETEENTH AND TWENTIETH CENTURIES

Records on earthquakes in the early 1800's are poor, but it is known that at least two shocks of large magnitude occurred in the Bay Area during the 1830's and two more major, better documented quakes were felt in the Bay Area in the latter part of the nineteenth century.

The strong shock of June 10, 1836 occurred in the East Bay and was accompanied by ground rupture on the Hayward fault. The magnitude of this quake has been estimated at 7.0 and its epicenter was probably located on the order of 20 miles from the site of Corte Madera. It is likely that the ground shaking intensity in the Corte Madera area was relatively strong during this quake, although no actual accounts are available.

The very severe shock of June 1838, probably comparable to the 1906 earthquake, involved ground rupture on the San Andreas fault. But the great shock of October 21, 1868 was accompanied by ground rupture on the Hayward fault and it probably caused damaging shaking at the site of Corte Madera. In San Francisco, damage was principally in areas of filled ground along the margin of the Bay.

In addition, the site of Corte Madera was probably subjected to relatively moderate shaking from smaller earthquakes occurring in the Bay Area in 1808, 1822, 1851, 1852, 1856, 1858, 1864, 1884, 1889, and 1898.

The great 1906 earthquake centered on the San Andreas fault and was accompanied by ground rupture along the fault. The shock is often considered as a reasonable model for future earthquakes in the Bay Area because of the wealth of information available on it and because many seismologists believe that a very similar earthquake is likely to occur in the Bay Area during the coming decades. The quake occurred on April 18, at 5:13 a.m. and strong shaking lasted approximately one minute. The shock was felt from Oregon to Los Angeles to eastern Nevada, although destructive effects were generally confined to within 30 miles of the San Andreas fault, from Eureka to the southern part of Fresno County. Displacement of the ground occurred along the line of the fault over about 270 miles of its length.

Reports on the earthquake do not give specific data on the effects to the Corte Madera area, but damage in San Rafael was probably similar to that in Corte Madera. Indications are that at least half of all the chimneys were down and some building walls fell and others cracked. Buildings were also reported to be severely damaged in San Anselmo.

Since 1906 very little seismic activity has occurred in the Bay Area and Corte Madera has been affected by only weak earthquakes such as the one in San Francisco on March 22, 1957.

TABLE CEQ 1: CONTAMINANT STATISTICS VS. AIR QUALITY STANDARDS FOR 1970 AND 1971 AT THE BAAPCD AIR MONITORING SITE IN SAN RAFAEL

POLLUTANT	AVERAGING TIME	FEDERAL STANDARDS		STATE STANDARDS	DAYS EXCEEDING STRICTEST STANDARD		MAXIMUM VALUE OBSERVED	
		PRIMARY	SECONDARY		1970	1971	1970	1971
Suspended Particulate	Annual ⁺	75 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	0	0	44 $\mu\text{g}/\text{m}^3$	46 $\mu\text{g}/\text{m}^3$
	24-hours	260 $\mu\text{g}/\text{m}^3$	150 $\mu\text{g}/\text{m}^3$	100 $\mu\text{g}/\text{m}^3$	4	6	136 $\mu\text{g}/\text{m}^3$	125 $\mu\text{g}/\text{m}^3$
Carbon Monoxide	12-hours	-	-	10 ppm	0	0	8.2 ppm	7.8 ppm
	8-hours	9 ppm	9 ppm	-	2	0	9.3 ppm	8.8 ppm
	1-hour	35 ppm	35 ppm	40 ppm	0	0	19 ppm	18 ppm
Oxidant	1-hour	0.08 ppm	0.08 ppm	0.10 ppm	41	21	0.24 ppm	0.18 ppm
Nitrogen Dioxide	Annual	0.05 ppm	0.05 ppm	-	0	*	0.03 ppm	*
	1-hour	-	-	0.25 ppm	0	0	0.17 ppm	0.12 ppm
Non-methane Hydrocarbon	3-hours (6-9 a.m.)	0.24 ppm	0.24 ppm	-	*	*	*	*

Source: "Air Quality & Growth in Marin County", Bay Area Air Pollution Control District, June 1972

(-) = No standard exists

(*) = Statistics are not available

(+) = Geometric mean

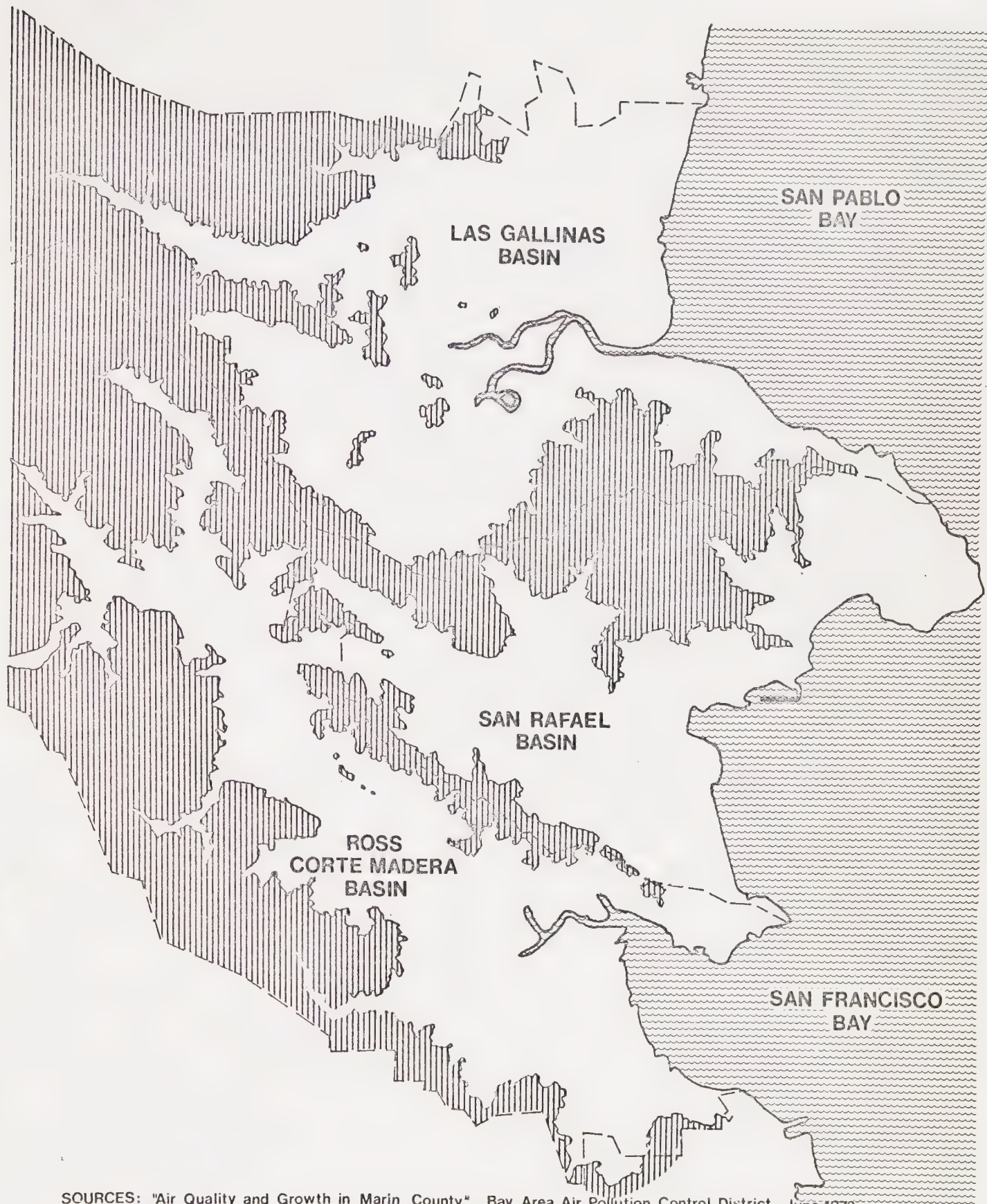
$\mu\text{g}/\text{m}^3$ (micrograms/cubic meter) and ppm (part per million) are measures of weight/volume and volume/volume respectively

NOISE LEVELS: CORTE MADERA REDEVELOPMENT PROJECT AREA NO. 1

According to California Government Code Section 65302, the California Division of Highways is responsible for preparing contour maps of the current noise levels generated by U.S. 101 and project anticipated levels caused by freeway improvements. This information, originally to be included in the Corte Madera General Plan, has not yet been prepared by the Division of Highways. Therefore, a summary of the results of investigations undertaken as part of the Environmental Impact Report for the Redevelopment Project Area is included. The data for this portion of U.S. 101 is still relevant, although additional data is required for areas south of Paradise Drive.

Noise level readings were taken over two consecutive 24-hour periods in early January 1973, at two locations in the project area: Position 1 on the railroad right-of-way approximately midway on the site; Position 2 on the dike, approximately 1,250 feet due east of Position 1. Appendix Figure CEQ4 indicates the average dBA experienced on the site and adjacent areas at 8 a.m. (the highest average level over the 24-hour period) and at 9 p.m., the beginning of nighttime readings. According to design criteria published by the Highway Research Board in 1971, the outside average day and night noise levels for residential structures should not exceed 50 and 45 dBA respectively. However, as can be seen of Appendix Figure CEQ4, noise levels were above the recommended maximums. Therefore, it was concluded that residential use would not be appropriate near this section of freeway.

Appendix Figure CEQ4 is plotted with the average noise level, L_{50} , generally caused by passenger cars (i.e., the noise level occurring 50 percent of the time). The L_{10} level readings (those occurring 10 percent of the time) reflect the noise level from the truck traffic on U.S. 101. These L_{10} readings are intrusions that often disturb sleep or interrupt a train of thought, and are considered a measure of "average peak" noise. Close to the highway, where noise levels vary from moment to moment, human response probably relates more to the noise peaks, such as from individual vehicle passages, rather than to the median sound level. Farther away from the noise source, the L_{50} is most appropriate as a predictor of human response to traffic noise from a heavily travelled roadway and, therefore, has been used as the level computed in Appendix Figure CEQ4. For reference, Appendix Table CEQ2 compares the L_{10} , L_{50} , and L_{90} for Positions 1 and 2 during a 24-hour period. L_{90} is the steady state background noise coming from traffic on U.S. 101 as well as from a multitude of other sources in all directions, none of them recognizable.



SOURCES: "Air Quality and Growth in Marin County", Bay Area Air Pollution Control District, June 1972

FIGURE CEQ-3 AIR BASINS

||||| 200 Foot Elevation

1 1/2 0 1 Mile



TABLE CEQ 2: DISTRIBUTION OF A-WEIGHTED NOISE LEVELS
(Noise level readings in dBA)

Time of Day	POSITION 1			POSITION 2		
	L ₁₀	L ₅₀	L ₉₀	L ₁₀	L ₅₀	L ₉₀
1 a.m.	57	53	48	55	52	51
2	55	51	46	54	49	47
3	55	50	43	54	49	44
4	55	48	41	53	47	43
5	58	52	46	55	51	47
6	60	55	50	57	53	50
7	62	58	55	59	57	52
8	64	62	56	59	57	52
9	64	61	55	59	55	51
10	61	58	53	59	51	47
11	57	53	50	52	47	43
noon	58	53	50	52	48	46
1 p.m.	59	55	51	55	50	45
2	59	55	51	57	48	46
3	60	57	55	55	47	45
4	60	58	56	56	50	47
5	61	58	56	58	53	50
6	63	58	56	58	54	51
7	63	58	56	59	54	51
8	60	58	55	55	52	48
9	60	57	52	55	52	49
10	59	56	51	56	53	51
11	59	55	51	55	52	50
midnight	57	54	50	54	52	48

Position 1: On railroad right-of-way, midway on site. Readings taken January 3-4, 1973.
Position 2: 1,250 feet due east of Position 1. Readings taken January 4-5, 1973.

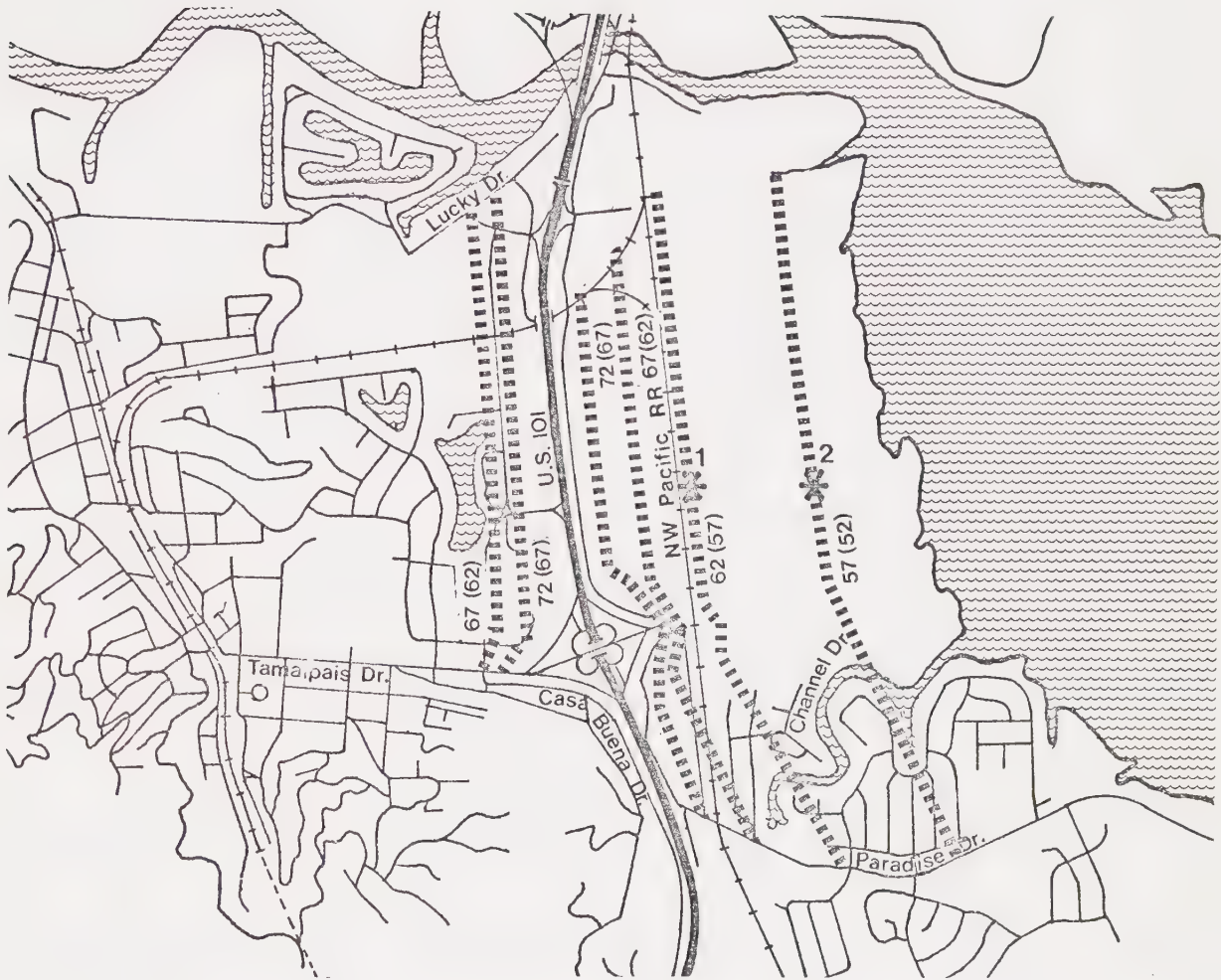


FIGURE CEQ-4
L₅₀ NOISE LEVEL, dbA

- * Positions 1 and 2
- 67 8 a.m.
- (62) 9 p.m.



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